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CONTENTS.

VOL. XXXI.—YEAR 1868.

March, 1868.

PAGE

Form of Government and Educational System of the University of Cambridge. By JAMES HEYWOOD, M.A., F.R.S. .... 1—10

Report on the Sixth International Statistical Congress, held at Florence, from 29th September to 5th October, 1867. By SAMUEL BROWN, F.S.S., President of the Institute of Actuaries.. 11—24

On the Trade with the Coloured Races of Africa. By ARCHIBALD HAMILTON, ESQ. .... 25—48

Analysis of the Report upon the State of the Empire of France, presented to the Senate and Legislative Body, February, 1867. By COLONEL SYKES, M.P., F.R.S. [Exposé de la Situation de l'Empire, presenté au Sénat et au Corps Législative, Février, 1867] .... 49—75

Miscellanea:—General Results of the Commercial and Financial History of 1867.—Statistics of British Gambling.—Co-operative Societies.—The Last Harvest.—Public Instruction in Turkey.—The Quarterly Tables.................................... 76—99

Quarterly Returns, October, November, December, 1867............ 100—120

June, 1868.

PAGE

Report of the Council, presented at the Thirty-Fourth Anniversary Meeting of the Statistical Society, held 16th March, 1868; with the Proceedings of that Meeting .... 121—126

On the Agricultural Statistics of the United Kingdom. By JAMES CAIRD, ESQ. .... 127—145

On the Comparative Population of European States. By SAMUEL BROWN, ESQ., F.S.S. .... 146—163

On the Finances of the United States of America, 1861-67. By LEONARD H. COURTNAY, ESQ. .... 164—221

Topographical Classification of the Agricultural Statistics of England (*with Six Coloured Maps*) .... 222—227

Miscellanea:—Taxation and Wages in America.—The Progress of Sanitary Reform.—Agriculture in France.—A Trades' Union .... 228—238

Quarterly Returns, January, February, March, 1868 .... 239—263

September, 1868.

Statistics of the Kingdom of Greece. By DEMÉTRIUS BIKÉLAS, ESQ. .... 265—298

The Increase of Material Prosperity and of Moral Agents, compared with the State of Crime and Pauperism. By J. H. ELLIOTT, ESQ. .... 299—330

Miscellanea:—Statistics of the Church of England, 1867.—Irish Holdings, Large and Small.—Labour and Capital in America.—Wheat Crops of 1868 and Former Years.—Trade of the United States.—Parliamentary Constituencies in 1832 and 1868.—Discrepant Criminal Statistics .... 331—352

Quarterly Returns, April, May, June, 1868 .... 353—372

December, 1868.

PAGE

Opening Address of the President of Section F (Economic Science and Statistics), of the British Association for the Advancement of Science, at the Thirty-Eighth Meeting, at Norwich, August, 1868. By SAMUEL BROWN, ESQ., F.S.S., President of the Institute of Actuaries .... 373—392

State of Health, and of the Employment of Indians in the New England Company's Settlement of Kauyageh, Canada. By JAMES HEYWOOD, M.A., F.R.S. 393, 394

The Cattle Plague in Norfolk. By WILLIAM SMITH, ESQ., M.R.C.V.S. .... 395—406

Some Statistics relating to the Civil Service. By HORACE MANN, ESQ. .... 407—417

The Present Aspect of Statistical Inquiry in relation to Shipping Casualties. By HENRY JEULA, F.R.G.S., F.S.S., Honorary Secretary to the Statistical Committee of Lloyd's 418—425

On the Condition of the Metallic Currency of the United Kingdom, with reference to the Question of International Coinage. By W. STANLEY JEVONS, M.A., Professor of Political Economy in Owens' College, Manchester .... 426—464

Thirty-Eighth Meeting of the British Association for the Advancement of Science, held at Norwich, 19th—26th August, 1868.—Section F, Economic Science and Statistics. 465, 466

Proceedings of the Statistical Society, Session 1867-68 .... 467, 468

Miscellanea:—The Harvest of 1868.—Trades' Unions and London Shipping.—The Railways of India.—Post Office Annuities and Assurances .... 469—482

Quarterly Returns, July, August, September, 1868 .... 483—502

INDEX to vol. xxxi (1868) .... 503—519

Vol. XXXI.] [Part I.

JOURNAL OF THE STATISTICAL SOCIETY,

MARCH, 1868.

FORM *of* GOVERNMENT *and* EDUCATIONAL SYSTEM *of the* UNIVERSITY *of* CAMBRIDGE. *By* JAMES HEYWOOD, M.A., F.R.S.

[Read before the Statistical Society, December, 1867.]

WHEN the Legislature, in 1856, modified the ancient constitution of the University of Cambridge, and appointed a Parliamentary Commission to assist in the revision of the university and college statutes, the opinion prevailed, that by admitting younger men to academical power, the governing bodies both of the colleges and the university would be more likely to progress in accordance with the march of improvement in the country.

For the university, an academical roll was devised, containing the names of the heads of houses, university professors, public examiners, and other officers of the university, as well as the list of other masters of arts and higher graduates, being members of the Church of England, who had resided at the least fourteen weeks during the year previous to enrolment, within one mile and a-half of Great St. Mary's Church, which is a central edifice in Cambridge.

To the persons whose names had been thus enrolled, the choice was committed of a council, to consist of four heads of houses, four university professors, and eight other resident masters of arts or higher graduates, being members of the Church of England: and the council so elected was to remain in office for four years, and to govern the university.

The initiative of almost all important academical business belongs to the council, and measures approved by that body are presented to the senate, a larger society, composed of all the masters of arts and higher graduates who are members of the Church of England, and who may generally be resident far away from the university. If sanctioned by the senate, the regulations proposed become statutes of the university.

There are seventeen colleges at Cambridge, and of these institutions the masters of only two, Caius College and Trinity Hall, are laymen; the remaining fifteen heads of houses are all clergymen of the Church of England; and the four representative masters of colleges elected into the university council for 1866-67, were all members of the clerical profession.

A large number of the resident fellows of colleges who are masters of arts, are in holy orders, and the majority on the clerical interest among the residents, is swelled by the local clergy and the chaplains, who read daily prayers in the colleges. In fact the only predominating lay element in the body of electors, who choose the university council, is the professoriate, consisting of twenty-eight university professors, the greater part of whom are laymen.

One of the privileges of the University of Cambridge is to superintend the printing of copies of the authorised version of the Bible, which was published early in the seventeenth century, and an early edition of which has been reprinted, with very slight alterations, down to the present day.

Biblical criticism for the last two centuries and a half has constantly advanced, and although no one will question "the general "beauty and majesty of our translation," yet there are portions of the English Bible which not do convey to the reader the same views which the original writer, whether in Hebrew or Greek, meant to communicate. The University of Cambridge does not undertake the initiative in correcting errors in the version which is published under its authority: and the academical committee or syndicate appointed in the department of the press, would very likely lose the confidence of the electoral body, to whom they ultimately owe their appointment, if they were to venture to amend any acknowledged errors in the authorised version.

Mr. Froude, in his essay on the Book of Job, observes, "that "there are many mythical and physical allusions scattered over "that poem, which in the sixteenth century there were positively "no means of understanding; and perhaps, too, there were mental "tendencies in the translators themselves, which prevented them "from adequately apprehending even the drift and spirit of the "composition."* A passage is quoted by Mr. Froude from the Book of Job, which is read at the opening of the English burial service, "In my flesh I shall see God,"—the correct rendering of which is, "without my flesh I shall see God."†

Mr. Pattison, the rector of Lincoln College, Oxford, in his suggestions on academical organisation, mentions especially the improvement derived from one of the enactments of the Oxford University Bill of 1854, the abolition of close fellowships, which he regards as having completely answered the expectations then formed respecting it.

---

* Froude's "Short Studies on Great Subjects," p. 269.

† Job xix, 26.

When the Oxford University Bill was originally brought forward in 1854, Mr. Gladstone, who had charge of it, intended the resident electoral body, called "congregation," to be an assembly of the persons engaged (about 170 in number) in teaching; but in the committee of the House of Commons this was changed so as to include all resident masters of arts and higher graduates, thereby adding about 100 members to the assembly. The ecclesiastical element in this body is popularly termed "the chaplains," who occasionally defeat measures of progress.

Educational System.

A young student going to Cambridge is entered as a member of a college before he matriculates in the university, and the college remains as his home during his academical career.

Regular studies are carried on in the colleges, with special examinations in the college subjects, a first class in the annual examination being always considered a prize for ambitious students to work for. Scholarships are bestowed for merit, some at entrance, and others at the end of one or two years of residence.

The university exercises the students at about the end of their first year, by the previous examination, or Little-go, which comprises one of the Greek and one of the Latin classics, the accidence of the Latin and Greek grammars, one of the four Gospels in the original Greek, Paley's "Evidences of Christianity," the "Elements "of Euclid," books i, ii, iii, and iv (propositions 1, 2, 3, 4, 5, 6), and arithmetic.

For students who intend to be candidates for honours, on taking a degree, either in mathematics, classics, law, natural science, or moral science, there is an additional examination connected with the Little-go, in which papers are set on algebra, logarithms, plane trigonometry, and elementary mechanics.

The degree examination follows in about a year and a-half after the Little-go; and for the general body of candidates desirous to be bachelors of arts, the "poll" examination comprises the following subjects:—

The Acts of the Apostles in the original Greek.
One of the Greek classics.
,, Latin ,,
Elementary algebra.
,, mechanics and elementary hydrostatics.

An additional paper is given containing two sections; first, an easy passage for translation into Latin prose; and secondly, a subject or subjects for English prose composition. Students are not required to present themselves for this additional paper, but the result of it is to be taken into account in assigning their places in the class list.

Students graduating by the general or "poll" examination, are required to have previously attended lectures delivered, during one term at least, from one or more of the professors of laws, moral philosophy, modern history, the laws of England, political economy, physic, anatomy, medicine, chemistry, botany, geology, mineralogy, and natural and experimental philosophy.

A certificate is requisite of the student having passed an examination satisfactory to one of these professors, whose lectures he may choose to attend.

Eight days of examination are given to students who contend for honours in the mathematical tripos, for the bachelor of arts degree; and the subjects include Euclid and conic sections, arithmetic, algebra, and plane trigonometry, statics and dynamics, hydrostatics and optics, Newton's "Principia," astronomy, natural philosophy, pure mathematics, and problems. The successful candidates are arranged in order of merit in three classes, 1. Wranglers; 2. Senior Optimes; and 3. Junior Optimes. The examination is held early in January in each year, and is followed towards the end of January by the classical tripos examination.

Students who contend for honours in the classical tripos examination, have exercises set to them, for four consecutive mornings, in Latin and Greek composition, consisting of translations from English prose and verse into Greek and Latin prose and verse respectively. On the afternoons of the same four days, and on the fifth day of examination, passages are proposed for translation, selected from the best Greek and Latin authors, and written answers required to such questions as arise immediately out of such passages. A paper of questions on ancient history, given on the sixth day of examination, completes the series of trials in this department of academical proficiency.

There are also triposes in moral science, law, natural science, and mechanism, and applied science, and each of these examinations qualifies a successful candidate for the degree of bachelor of arts at Cambridge.

Moral science has three branches—moral philosophy, history, and political economy; each student presenting himself for examination in the moral science tripos, is required to select one of these branches of study, and to show a competent knowledge of the department selected; no student is allowed to be examined in more than one branch.

In the law examination for the bachelor of arts degree, printed papers are given to the candidates, containing—

1. Passages from Justinian's "Institutes," in the original Latin, for translation, and questions upon the "Institutes."

2. Questions on Lord Mackenzie on Roman law, an option being allowed to students to be examined in the elements of Hindú and Mohammedan law.

3. Questions on Malcolm Kerr's abbreviated edition of "Black-" stone."

The natural science tripos comprises four branches, (1) chemistry; (2) geology; (3) botany; (4) zoology, any one of which may be selected by a student for examination, but no student is to be examined in more than one branch.

Under the head of mechanism and applied science, are included the practical application of mechanics, hydrostatics, hydraulics, heat, electricity, and magnetism, in which three papers are set. All persons whose names are contained in the class list, may become bachelors of arts.

Students who have attended the lectures of one of the professors of moral philosophy, modern history, political economy, chemistry, anatomy, botany, or geology, and who have satisfied the examiners in one of the papers given to some one of the special examinations in moral or natural science, may enter the theological examination, and may by success therein qualify themselves for the bachelor of arts degree.

The subjects of the theological examination comprise—

1. Selected books of the Old Testament in the English version.
2. One of the Four Gospels in the original Greek.
3. Two at least of the Epistles of the New Testament in the original Greek.
4. The history of the Church of England to the Revolution of 1688.

A paper is set for this examination on a selected portion of the Old Testament in Hebrew, for which students are not required to present themselves, but the result of the Hebrew examination is taken into account in assigning the places of the theological students in the class list.

Fellowships in the smaller colleges of Cambridge are usually filled up from among the graduates of those colleges respectively, whose names stand well in the honour lists of the principal triposes; thus a bachelor of arts, who has obtained a place among the first twenty wranglers, or who is in the first class in classics, or the first class in either natural or moral science, would almost certainly be elected to a vacant fellowship in a small college to which he might belong at Cambridge; and when no such candidate is in the college, the college authorities look to a distinguished man of some other college to fill the vacant place.

Candidates are admitted to fellowships at Trinity College, by success in a special examination within the college. At St. John's College the fellows are chosen partly with reference to their position in the triposes, and partly by collegiate examination.

Professor Seeley, M.A., Fellow of Christ's College, Cambridge, proposes, in a recent essay on liberal education in universities, that the fellowships in every college should be thrown open to the whole university. He advises that the names of the successful candidates in each class of every tripos should be arranged alphabetically.

" It might be an understanding in the colleges," he observes, " that no one could sit for a fellowship who had not taken a first " class in some tripos." " The only question is, how would you " compare two men who had both taken a first class?" " It is " only their acquirements in one department that are compared, " whereas the fellowship should be a reward of general intellectual " merit." " It seems to me," remarks Professor Seeley, " that the " difficulty would be best solved by requiring all the candidates " assumed to be first class men, to write an English essay upon one " of several subjects put before them. In this way you might discover whether the classical man had any power of thought, and " the mathematician any power of language." " The mere classic " would be detected by his reasoning, and the mere mathematician " by his spelling, and in this way you would readily distinguish " the truly intellectual man from the highly-trained school " boy."*

Professor Seeley recommends that the lectures of every college should be open to the whole university, so that each lecturer might be directly interested in increasing the numbers of his class, and might receive a capitation fee for each attendant in his lecture room.†

The character of the small colleges, in the opinion of the professor, would thus perhaps be gradually changed; some colleges might find it advisable to give themselves a more individual character, and to devote themselves to special studies. One college might make itself a school of law, another of theology, and another of natural science.

Christ Church, Oxford, has given an example of encouraging different branches of study by its recent ordinance, that in the filling up of thirty-one open junior studentships or scholarships by college examinations, mathematics and physical science are to form the subjects of examination for at least one in every three junior studentships, the intervening two being decided by classical attainments.

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* " Essays on a Liberal Education," Macmillan and Co., 1867, pp. 173, 174.

† Ibid., p. 167.

In the demyships or scholarships of Magdalen College, Oxford, proficiency either in mathematics or natural science, qualifies the candidates for a certain proportion of those rewards of academical study.

At Trinity College, Cambridge, the governing body, consisting of the master and eight senior fellows in residence, have arranged in the year 1868 to throw open all the foundation scholarships of their colleges to the members of the college, as well as to all members of either university who have not resided more than one year.

There are seventy-four foundation scholarships in Trinity College, tenable for about five years, and there are usually between fifteen and sixteen vacant every year. The master and seniors have determined that one of the vacant scholarships shall be given in 1868 for adequate proficiency in natural science, and one scholarship in 1869 for adequate proficiency in some Oriental language or languages.

If these experiments succeed, it is probable that in Trinity College, considerable modifications will, before long, be introduced into the system of election both for scholarships and fellowships.

Several of the colleges at Cambridge are inclined to open their fellowships without any religious test. The amount given to scholarships has been much increased since the revision of the college statutes under the Parliamentary Commission of 1856. Dr. Bateson, Master of St. John's College, Cambridge, is of opinion that the amount given to scholarships may be taken to have been "at least doubled."

Resident scholars have college rooms free of rent, and the pecuniary advantages of a Trinity College scholarship were, in 1851, estimated by the Rev. F. Martin, the bursar of the college, as follows:—

	£	*s.*	*d.*
Dining in hall free of expense, say for thirty weeks during the year	17	-	-
(If the residence of the scholar continues more than thirty weeks in the year, as is generally the case, he receives for each additional week about 14*s.* 3*d.* more).			
3*s.* per week during residence for thirty weeks	4	10	-
For livery (the college gown) and stipend	1	6	8
Residence money (which is more than the usual rent of a scholar's rooms)	24	-	-
	46	16	8

Besides the pecuniary value of the scholarship, there is a distinction in the possession of a separate table in the hall, and somewhat higher seats in the chapel; the scholars take in turn the duty of saying grace after dinner in hall, and of reading the lessons in the ordinary Church of England services in the college chapel.

Mr. C. S. Roundell, Fellow of Merton College, Oxford, stated to the university committee in the present year, on the authority of Professor J. E. T. Rogers, that in 1861 there were four hundred college scholarships at Oxford, tenable, as a rule, for five years, and that the value of each of these scholarships amounts, on the average, to 65*l.* per annum. The Oxford scholarships, therefore, in the aggregate, amount to 26,000*l.* per annum, of which eighty scholarships, equal in value to 5,200*l.*, are open to competition every year.

A great step in advance is taken by Trinity College, Cambridge, in opening its scholarships, within a few months, to candidates of one year's standing in either university of Oxford or Cambridge.

The examination for these scholarships is partly classical and partly mathematical, and the period of one year's residence in the university, corresponds very nearly with the time when students would enter the previous examination, or Little-go, at Oxford and Cambridge.

Responsions, or the previous examination at Oxford, comprise one Latin and one Greek author, questions in Latin and Greek grammar, in arithmetic and in Euclid or algebra; and a passage is set for translation from English prose into Latin.

The object of Trinity College, Cambridge, in opening more widely the competition for its scholarships, is to attract to the college the best men of either university, and the nationality of that royal foundation would be more certainly established if candidates from the British and Irish universities, who had passed one regular university examination, were permitted to compete for these important emoluments.

In the University of London, the matriculation examination corresponds with the previous examination, or Little-go, of Oxford and Cambridge, and its range of subjects comprises—

1. One Greek and one Latin author, the paper in Greek containing passages to be translated into English, with questions in grammar, history, and geography; and the paper in Latin containing passages to be translated into English, with questions in history and geography. A separate paper is set, containing questions in Latin grammar, with simple and easy sentences of English to be translated into Latin, and a corresponding paper is set in Greek; between these two papers an option is allowed to the candidates.

2. The English language, English history, and modern geography.
3. Mathematics and natural philosophy.
4. Chemistry.
5. Either the French or the German language.

If this range of subjects be compared with the subjects for examination at the previous examination in Cambridge and the responsions in Oxford, the intellectual preparation of a matriculated London University student, will manifestly be sufficient to entitle him to be a candidate for a scholarship at Trinity College, Cambridge.

One of the masters of Eton College stated to the author of this paper, that at Eton they "wanted fresh blood," meaning that they would derive advantage from masters who had been brought up in a less limited circle than that which generally restricts the choice of masters at Eton.

Dr. Dobson, when head master of Cheltenham College, mentioned to some of the members of the British Association for the Advancement of Science, that the introduction of more science into the school over which he presided, must depend on the subjects appointed for the examination of scholarships at Oxford and Cambridge. Parents wish their sons to get scholarships.

We cordially sympathise with Professor Seeley in his recommendations:—

1. To open fellowships in every college of Cambridge to the whole university.
2. To limit the candidates for fellowships to bachelors of arts who had taken a first class in some one of the triposes or honour examinations for the bachelor of arts degree at Cambridge.
3. To arrange the names alphabetically in each class of every tripos.
4. To require the candidates for fellowships to write an English essay upon one of several subjects set before them.
5. To open the lectures of every college to the whole university.

In several instances there has been already united action among the smaller colleges both at Oxford and Cambridge, in order to form a better system of tuition.

Thus Trinity Hall and Caius College, at Cambridge, have agreed to adopt the same teacher of moral philosophy and political economy. An understanding favourable to combined tuition, exists between Baliol College and New College at Oxford.

Reform, however, seems to be most promoted in the largest colleges, and even there the assistance of the legislature is needed to enable them to open their fellowships without any subscription to the test of "conformity with the liturgy."

Exercises in the composition of Latin and Greek verses are now becoming antiquated subjects of examination. At Harrow School, composition in Latin and Greek verses is optional, and where a boy has no taste for that art, is never insisted upon. The introduction of modern languages and natural science, as alternatives to Latin and Greek verse composition, in the examinations for college scholarships, would have a beneficial effect on general school instruction.

We advise some movement among friends of education to represent, by a memorial or otherwise, to the master and fellows of Trinity College, Cambridge, the expediency of allowing candidates for scholarships to have the option of different subjects, so that, for instance, French and German papers may be alternatives to exercises in the composition of Greek and Latin verses; and that the scholarships of that royal foundation may be opened to candidates from any British or Irish university, who have passed one regular academical examination in a university, the number of candidates from universities not hitherto recognised at Cambridge, being limited by the payment of a moderate fee to the college.

REPORT *on the* SIXTH INTERNATIONAL STATISTICAL CONGRESS, *held at* FLORENCE, *from* 29*th September to* 5*th October*, 1867. *By* SAMUEL BROWN, F.S.S., *President of the Institute of Actuaries.*

[Read before the Statistical Society, December, 1867.]

THE object of the Statistical Society is not merely the collection of facts on any particular subject, but the collection of them in such a form as will enable the true law of their recurrence to be discovered. It has sometimes been said that statistics will prove anything. But this could only be because the student enters upon the inquiry with a prejudice in favour of some preconceived result, which induces him either to omit the classes of facts which favour the opposite side, or to give undue weight to those to which his opinion leans. Those who search for truth without reference to consequences, desire to collect all facts, which either by analogy or by difference will throw light upon the true laws of the probability of events, and enable us to discover the circumstances and conditions under which they will always occur again.

The members of this Society therefore naturally take an interest in congresses, the aim of which is to bring together the experience of men under whose official authority the collecting of facts which show the condition and progress of different countries is placed. The great questions of population, production, facilities of transport, of internal and foreign commerce, education, pauperism, crime, and others,—which indicate the healthy advance or decay of a nation, are on too large a scale to be entrusted to individual inquirers. To arrive at sound conclusions, it requires that the facts on which the judgment is to be formed should be gathered by the power of Government, by men having no special prejudices to please, and over so large an area that every subject of inquiry should not merely find a place according to its relative importance, but that the observations should be made under such varied circumstances that all its changing phases may be accounted for.

In this sense we owe a deep debt of gratitude to M. Quetelet, the distinguished mathematician and writer on statistics, for originating the Statistical Congress in Brussels in 1853. The skilful manner in which it was organised, the broad and intellectual view which was taken of its purposes, and the practical results of the resolutions agreed to, have tended to make each succeeding similar congress a still greater success. The eminent men who were sent as delegates by the different Governments were not only those who had studied under the greatest advantages the important questions to be discussed, but who, by their official position, were able to see that the decisions of the congress were afterwards, as far as possible, carried into effect. It was a happy thought, too, which called to the discussions writers or thinkers on special subjects, who, having thoroughly examined any particular branch of inquiry, were enabled by their sagacity or experience in the minutest details, to suggest points which might have escaped the notice of others who had only considered them as subordinate parts of some larger research.

I need hardly point out to such of our members as have either attended these meetings or watched the results of them, what vast improvements have been made in the form and matter of Government publications of statistics since these congresses began. The first and most important subject is that of population, because all the comparisons of the state and progress of one country with another must be made dependent upon the relative population of each. How many students will recall the painful labours with which they formerly endeavoured to place the facts side by side. The classes of age, periods between the census, nature of occupation, causes of mortality, all differed, so that it was scarcely ever possible to compare the statistics of even two countries together without heavy preliminary work, even if it could be accomplished at all. But though much still remains to be done, an immense step has been taken in the right direction, as is shown by the valuable collection of population statistics formed by M. Quetelet, ably seconded by M. Heuschling, and recently published at the expense of the Belgian Government. If M. Quetelet or others of his colleagues will extend this kind of compilation to other branches of inquiry, such as commerce, finance, costs and profits of production, wages, manufacturing industries, displacement of labour by machinery, &c., they will be doing service to every nation, and prove that these congresses have produced results, not merely in the advance of science, but in practical benefits to the world at large.

At the close of the Statistical Congress at Berlin in 1863, a debate took place as to the next place of meeting, and it was left to the organisation committee to decide the question. They finally fixed upon Italy, and the city of Florence. The meeting there was as successful as any of the preceding, though the political circumstances of 1866 delayed the assembly till the present year,—in point of numbers, comprising not merely foreign delegates, but eminent statesmen, writers, and learned professors of Italy, it exceeding any previous meeting. There were—

At the Congress.	Year.	Members.		Total.
		Natives.	Foreigners.	
Bruxelles	1853	112	124	236
Paris	'55	133	131	264
Vienna	'57	464	77	541
London	'60	505	90	595
Berlin	'63	350	127	477
Florence	'67	632	85	717

The total number at Florence was 717; the next largest number being in London, 595. When the choice had been made in favour of Italy, the king appointed by decree, 25th January, 1866, a preparatory commission, under the presidency of the Minister of Agriculture, Industry, and Commerce, including some of the highest statesmen and scientific men of Italy, and to show the interest which he took in the subject, nominated his eldest son, His Royal Highness the Prince Humbert of Savoy, Prince of Piedmont, as general president of the congress.

By this commission the programme of the subjects to be discussed was prepared, and it is impossible to refer to it without mentioning the great services which were rendered to it by the ability, the earnestness, and the practical experience of Dr. Maestri, the head of the statistical department of Italy. Though many laboured with zeal, he may be considered the mainspring of the success of the congress. In the sketch of the programme which was drawn up by him, Dr. Maestri wisely advised that some of the subjects which had been commenced, but left unfinished at the previous congresses, should form the principal features of the debates. To these were added some topics suggested by an extensive correspondence with his colleagues in foreign Governments, in whose replies are contained hints worthy of deep reflection. Dr. Maestri further conferred a great boon on the students of statistics, by continuing an admirable work carried out by Dr. Engel for the Berlin Congress, being a *resumé*, under distinct heads, of all the subjects previously discussed, the resolutions passed, and the propositions deferred for further consideration at the former congresses. In the vast multitude of questions and their subdivisions, which have now been treated of, such a work is essentially necessary to know what points have been settled and how much still remains to be done. Though accessible in French, such a work ought to be translated into the language of every country, since it is not only an index to the proceedings of the various congresses, but contains the principles and methods by which every statistical inquiry should be conducted to obtain uniformity in the results, and thus be enabled to examine facts for the laws which govern their occurrence, under the widest possible range of observation, and in their varied conditions in different countries.

During two days preceding the congress, several preliminary meetings of the foreign delegates were held, at which, amongst others, resolutions were passed in favour of a mutual interchange of official documents, of publishing in each country a brief summary of the larger statistical tables at a moderate price, somewhat in the form of our annual statistical abstract, and an index of documents which have appeared in past years, sufficiently descriptive to allow of their being consulted on any particular subject. It must be admitted that if such works were prepared for all countries in the French, as a general language for all, a vast impulse would be given to the scientific treatment of statistical questions.

The congress was opened on the 29th September last, by the Minister of Agriculture, Industry, and Commerce (S. de Blasiis) by an eloquent speech of welcome in Italian, followed the next day by a longer discourse, in which, after explaining how the recent changes in Italy had required reforms to be made in every branch of the public service, and original statistical researches of the highest interest, both in the provinces and towns, he expressed his hope that Young Italy would be found not to have degenerated from her ancient scientific renown; and that, revived by the breath of liberty, the people would awaken to maintain the former glories of Italian intellect.

At these two sessions the Minister of Agriculture was formally installed as president, the members of the preliminary commission, the official delegates, and M. Wolowski, Member of the Institute of France, as vice-presidents, and the secretaries appointed for the congress were M.M. Worms, Reymond, S. Brown, Mayr, De Thœrner, Bodio, Boni, and Casaglia.

As the list of foreign delegates comprises the names of the most eminent writers and officials in the statistical departments of each country, I here subjoin it. I have given the foreign titles in French as they appear in Dr. Maestri's report.

ALLEMAGNE.

Autriche.—Czœrnig (Son Excellence le Baron de), Conseiller intime actuel; Schmidt, Frédéric, K.K., Vice-Directeur de la Statistique Administrative.

Bade.—De Hardeck, Dr. Frédéric, Conseiller de Légation et Chef du Bureau Générale de Statistique.

Bavière.—De Hermann, Conseiller d'Etat, Directeur du Bureau de Statistique.

Hambourg et Brême.—Wersmann, Jean George, Sénateur.

Hesse.—Fabricius, Auguste, Conseiller, Supérieur des Aides, Directeur du Bureau de Statistique.

Prusse.—Engel, Dr. Ernest, Directeur du Bureau Royal de Statistique.

Saxe Royale.—Petermann, Louis Théodore, Directeur du Bureau de Statistique.

Saxe Weimar, Meiningen, Alenbourg, Cobourg Gotha.—Hildebrand, Bruno, Professeur, Directeur du Bureau de Statistique de Jena; Hopf, Conseiller aux Finances et Directeur de la Banque de Gotha.

AMERIQUE MÉRIDIONALE.

Republique Argentine.—Mantegazza, Professeur Paul.

EUROPE.

Belgique.—Quetelet, Adolphe, Directeur de l'Observatoire, Président de la Commission Centrale de Statistique; Visschers, Conseiller Supérieur des Mines et Membre de la Commission Centrale de Statistique; Heuschling, Chef de Division au Ministère de l'Intérieur et Secretaire de la Commission Centrale de Statistique.

Danemark.—David, C. N., ancien Ministre, Conseiller de Conférence, Directeur du Bureau de Statistique.

France.—Legoyt, Alfred, Directeur du Bureau de la Statistique Générale de France; Yvernès, Émile, Délégué du Garde-des-sceaux; Wolowski, Louis, Délégué du Ministère de l'Agriculture, de l'Industrie, du Commerce, et des Travaux Publics, et de l'Institut de France; Worms, Émile, Membre de la Délégation Française.

Grande Bretagne.—Farr, Dr. William, Chef Surintendant du Departement Statistique, Registrar-General Office, de Londres; Fonblanque, Albany W., Chef du Département Statistique Board of Trade, de Londres; Donnelly, William, Chef du Département, Registrar-General Office, d'Irlande; Balfour, Thomas Graham, Inspecteur-Général, adjoint Délégué du Ministère de la Guerre; Hammick, James Thomas, av. Membre du Directoire du Registrar-General Office.

Norvége.—Kiœr, A. N., Directeur du Bureau de Statistique de Christiania.

Pays-bas.—De Baumhauer, Dr., Chef de Division au Ministère de l'Interieur, Directeur du Bureau de Statistique.

Roumanie.—Bengesco II, Grégoire, ancien Ministre; Vulturesco, Grégoire, Chef du Bureau de Statistique.

Russie.—Ignatius, Charles, Secretaire du Bureau de Statistique de Finlande; Mussnitzky, Rédacteur du Comité Central de Statistique; Semenow, Pierre, Conseiller d'Etat actuel, Procureur en Chef, Membre de la Section Statistique de la Société Impériale Géographique, Directeur du Comité Central de Statistique; Thœrner, Théodore, Conseiller d'Etat actuel, Délégué du Ministère des Finances; Wilson, Jean, Chef de la Section de Statistique au Département de l'Agriculture.

Serbie.—Jakchitch, Vladimir, Chef de Section de la Statistique Officielle au Ministère des Finances.

Suède.—Berg, Dr. Frédéric Théodore, Conseiller intime, Chef du Bureau Central de Statistique.

Suisse.—Pioda, J. B., Ministre Plénipotentiare; Wirth, Max, Directeur du Bureau Fédéral de Statistique; Moynier, Gustave, Délégué de la Municipalité de Genève.

The countries which sent no delegates were Spain, the Pontifical States, Portugal, Turkey, Wurtemberg.

Besides the official delegates, there were many foreign representatives of scientific and other societies. The delegates who attended from this Society, Messrs. Farr, Hammick, Levi, and S. Brown, were favoured with a letter from the president (the Right Hon. W. E. Gladstone) to His Royal Highness the Prince Humbert, which, in the absence of the prince at Paris, was presented through the Minister of Agriculture, who presided at the congress, and treated the delegates throughout with marked courtesy and attention.

On the proposition of Dr. Maestri, notices were given of eminent statisticians deceased since the last congress. Dr. Engel paid a tribute to the memory of Dr. Casper, Dr. Baumhauer of Dr. Asher, M. David of Professor Mittermaier, M. Legoyt of M. de Guerry, Dr. Hermann of M. Bœck, M. Vulturesco of Martianu.

The list of presidents, vice-presidents, and secretaries for each of the eight sections was also read, and the members of each section proceeded, in their respective rooms, to the discussion of the important subjects laid before them.

The mere enumeration of these subjects, with the names of the authors of the reports in the programme and the names of those who were appointed as reporters of the decisions of the sections to the congress, will recall to those who had the good fortune to be present, the able debates in the sections, and the eloquent and lucid addresses in which the conclusions were brought before the general meetings. The latter frequently comprised a summary of the arguments which led to the final resolutions, and, when published in the full report, will be found of the highest interest.

	Number of Members.	Reporters.	
		In the Programme.	To the Congress.
1ST SECTION.			
Theory and Technology of Statistics	107		
Reorganisation of the congress	—	Visschers	Engel
Constitution of official statistics	—	Correnti	Castiglioni
Official population of States	—	Anziani	Engel
Laws of mortality and normal tables for assurance companies	—	Brioschi	Brioschi
Uniform nomenclature for statistics	—	Maestri	De-Luca
2ND SECTION.			
Topography	73		
Organisation of meteorological stations, and formation of a daily chart for Europe	—	Cantoni	Cantoni
Nature, ownership, and regulations for supply of water	—	Pareto	Pareto
3RD SECTION.			
Agricultural Statistics	116		
Net revenues of cultivation and value of products	—	Rabbini	Rabbini
Cattle; production; imports; exports	—	Lampertico	Lampertico
Economy of the credit foncier (land loans)	—	Restelli	Wolowski
4TH SECTION.			
Communal Statistics	124		
Demography (boundaries) and economy of communes (government)	—	Correnti	Vulturesco
5TH SECTION.			
Statistics of Monetary and Paper Currency	52	Allievi	Pascal Duprat
Uniformity of weights and measures	—	"	Allievi
6TH SECTION.			
Moral and Judicial Statistics	140		
The poor	—	Maestri	Errera
Causes of offences against the law	—	Messedaglia	Yvernès
7TH SECTION.			
Army Medical Statistics	41	Baroffio	Baroffio
8TH SECTION.			
Education	144		
Schools of fine art	—	Maestri	Villari
Archives	—	Bonaini	Muller
Libraries	—	Gar	Bongi Martini
Museums	—	Fiorelli	Gennarelli

The report upon hydrography was presented at the third general meeting, and the resolutions unanimously adopted. They are too long to quote in full, but are to the following effect:—

1. That it is very desirable for each State to publish the facts

relating to the distribution and the levels of the water supplies, distinguishing what is actually utilised or left to run waste, also in their physical aspect, and the use that can be made of them for sanitary purposes in industry and in commerce; the average quantity supplied to each inhabitant for domestic uses and for public municipal objects; the dimensions of supply pipes, volume of water and rate of flow; finally, the levels at the source and of the country over which they flow; the rapidity and volume of the streams; the quantity given out in a year and in each month; the variation according to seasons; and the extent to which they are utilised in agriculture and industry.

M. Allievi at the same meeting reported the resolutions of the Fifth Section on weights and measures, which, after a few eloquent remarks from M. Wolowski that France, without being too proud of originating a universal system, might still felicitate herself on contributing to the great benefits which have been and will be thereby secured to the human race, were passed unanimously.

1. The Congress of Florence, confirming the resolutions of all the previous congresses, recommends the universal adoption of the metric system.

2. That the delegates from countries in which it is not yet adopted, be invited to form national associations to make known its advantages, and to use every means of obtaining the desired end of unity of weights and measures amongst all nations.

3. That these associations, and the one formed in London, should unite to obtain the materials for a report to be made to the next congress on the progress of the system, and on the difficulties it has to encounter.

4. That the knowledge of the metric system should be more diffused, and for this purpose the congress recommends that it should be taught in the Government schools and by popular publications, and generally urges the means of instruction suggested in M. Jacobi's report.

The question of supply of cattle gave rise to an animated debate on the fourth day, in which M.M. Carpi, David, Pioda, Rabbini, Leone Levi, Arrivabene, Lassi, Pareto, and Predieri took part, whose objections were replied to by S. Lampertico, whose propositions to the following effect were approved.

1. That the enumeration of cattle should be made at frequent intervals, not exceeding ten years, and should, as nearly as possible, coincide with the census of the people.

2. That each proprietor should receive schedules on which to make his own separate return.

3. That the schedules should distinguish horses, oxen, pigs, sheep, and goats, specially noting the breed, age, and destination.

4. Establishments for improving the breed, their expenses, regulations, &c.

5. Information as to diseases, whether contagious or infectious, and the mortality they have occasioned, distinguishing the breed, age, and destination.

6. The number and kinds of animals should be stated absolutely as well as relatively to the surface unit of the country and to the population.

On the same day M. Cantoni gave in the report on meteorology, which Dr. Engel objected to on the ground that it would greatly add to the labours of statistical departments by extending the sphere of observations to facts which appeared more strictly to belong to the natural sciences. But after some remarks by Dr. Farr in support of the propositions of the Second Section, they were passed; proposing to the congress that the statistical department of Italy should be requested to invite the directors of the meteorological stations in different countries to arrange amongst themselves the means and the bases upon which they could interchange observations made at a certain number of points in each country, so as to obtain the most complete general view of the whole.

The statistics of communes, debated in the Fourth Section, led to a very lively discussion and great differences of opinion at the general meeting. The resolutions finally adopted would include very minute inquiries into the boundaries of communes, density of population, their economical condition, form of government, finance, sanitary measures, and the authorities under which they are carried out, and comparisons of the annual statistics of great towns. In the tendency which has for many years past been observed amongst the population of this country to congregate in large towns, such carefully collected facts on a uniform plan may afford the most valuable materials for the changes in municipal governments, new regulations, and improvements which the times require.

Several valuable suggestions by M. Castiglioni, on the formation of statistical bureaux, aided by committees of men of science and practical knowledge in every country, were referred to the preparatory commission of the next congress. But the important question of the future organisation of the congress and its statutes, on which M. Visschers had sent in a most able report, was at last deferred for consideration at some future congress.

At the sixth general meeting M. Quetelet presented the very important work, suggested by him to the Congress at London, on the comparative statistics of populations in different States, to which I have alluded; and it is gratifying to know that it is to be resumed with the aid of some of his distinguished Government colleagues for other branches of inquiry.

The report on unity of money was introduced by M. Pascal Duprat, and supported by M. Wolowski, though Professor Leone Levi regretted that the Section had not recommended something more definite. The resolution passed was to the effect—

> " That the congress, approving the objects of the monetary con-
> " vention at Paris, of 23rd December, 1865, concurs in all
> " the measures which tend to bring to a common type, or to
> " analogous types, with easy means of comparison, on the
> " basis of a decimal system, the different monetary systems
> " at present in use.
> " That the official statistical bureaux be invited to collect the
> " statistics of money circulations, and of the precious metals
> " on which they depend."

The heads of these inquiries are:—

1. *Production.*—Gold and silver; in reference to the former whether obtained by extraction or washing; note the places of production; the weight and value of the annual produce.

2. *Distribution.*—Importation and exportation; countries from and to which it passes; whether by land or sea; in what form conveyed; whether in ingots or coined, objects of art, or simple industrial products; to give a monthly table of import and export under these heads.

3. *Consumption.*—Coinage; pieces of all kinds legally current in the State; annual returns of the mint; withdrawal of old coin; quantities of precious metals used by goldsmiths and jewellers; similar statistics of what is absorbed in industries of all kinds; estimates of annual loss.

The general assembly afterwards agreed to a proposition introduced by M.M. David and Baumhauer, "that the heads of the " statistical departments in each country should be requested to lay " before the next congress tables of the measures, weights, and " coins of each country, with their reduction into those of the " other principal States represented."

However interesting all these inquiries are, it is evident that the resolutions do not, so far as monetary values are concerned, go far towards pressing for the unity which is so desirable for statistical values. As the monetary convention already extends to more than seventy millions of people, it would be of the utmost advantage if the two greatest commercial nations—Great Britain and the United States—could effect those slight changes in the value of their monetary units, which would bring them within the terms of the convention, and thus add sixty millions more people using but one system of weights and measures, and one system of money values. Others would soon follow.

The proceedings of the Eighth Section, and the discussions on the statistics of the fine arts, archives, libraries, and museums, resulted in a long series of resolutions, in some of which it is difficult to distinguish the purely statistical from the artistical view of the information demanded. But if all the facts required can be obtained, there will no doubt exist the means of reducing to the form of tables a considerable number of the facts, the remainder serving rather for the elucidation of them, or as contributions to the history of art and literature.

Part of the propositions in the Third Section, as to the methods of obtaining a general form of survey of land, were referred to the next congress; also as to a uniform nomenclature for crops of various kinds. The deductions necessary to be made from profits of agriculture by atmospheric causes, drought, hail, inundations, for expenses of cultivation—such as wages, animal power and its cost, repairs to agricultural implements and buildings, irrigation, manure, food, or other customary allowances to labourers in lieu of wages, &c., should also be scheduled. Further work was prepared for the next congress by recommendations to obtain the statistics of loans upon land, their amounts, interest, nature of repayment, whether by terminable annuities, and if so, the amount repaid and amount remaining due, &c. M. Wolowski spoke with his usual ability in introducing these reports.

At the seventh and last meeting, there still remained several most important reports to present. That of the Sixth Section, on criminal and judicial statistics by M. Pierantoni, suggested the collection of judicial statistics under the principal causes of crime, the number and results of crimes of violence, according to the instruments or means used to effect them; the number of the accused, with the age, sex, civil condition, degree of instruction, religion, and domicile, whether town or country. Another resolution, was introduced to obtain from the statistics of prisons and penitentiaries, whether the prisoner had been brought up in any charitable institution, if so, whether it was supported by Government or private patronage; for what time he was under its surveillance; what was his conduct and occupation there, and why he was withdrawn from it.

The report of the Seventh Section, over which Dr. Graham Balfour so ably presided, went into the details of medical statistics for the army and navy, and was brought up by M. Baroffio. Besides requiring returns of diseases and mortality, according to age, duration of service, number of days of sickness, &c., the congress renewed the resolution passed at the Berlin Congress, relative to the care of the wounded in time of war, and to an inquiry into the means of providing more efficient sanitary service for armies in campaign.

Two or three important questions were introduced from the First Section, one as to the census, that each individual should state whether he is born in the commune or district; if not, where, and how long he has been in his present residence; if the head of a family, or his wife, or children, who have not yet a domicile of their own, are absent, it should be stated how long absent, and the name of the place and country to which any individual is gone. It was further recommended that the end of the year should be chosen for the census, as the time when there are the fewest absentees, &c.

Another report from this Section by M. de Luca, to obtain uniformity in statistical language, recommended that the directors of official statistics in different countries should be asked to undertake this important task, and report the results to a future congress, and that in all statistical publications the exact definitions should be given of the terms newly employed, or the ancient terms which may be used in a new sense.

The last report was given in from this Section by M. Brioschi, with resolutions which were approved, (1) that every Government should publish normal tables suitable for the operations of the different classes of life assurance companies, and which, being revised and republished whenever the tables of mortality are corrected, may serve as a guarantee to the public for their safety and sufficiency; (2) that the Governments should obtain from the assurance companies their mortality experience, and publish the results.

Two or three isolated resolutions were also passed at some of the meetings, the most important of which is one moved by M. Quetelet, to whose intellectual labours the study of statistics owes so much of its scientific character. The resolution was unanimously adopted in the First Section, and as cordially approved by the general assembly. "Considering the importance and exten-"sion of statistical questions, based on mathematics, and that in "all civilised nations illustrious geometricians have applied the "calculus of probabilities to the elucidation of these questions, it is "very desirable that at future congresses there should be con-"stituted a special section charged with the duty of examining "statistical subjects in their direct relation with the theory of pro-"babilities." This is a practical step towards utilising the immense mass of information which will be obtained, if even a small part of the resolutions of the previous congresses be carried out by the respective Governments, so as to obtain the details on a uniform plan. It is difficult to say to what statistical subjects the theory of probability does not apply, and the results may be of the highest importance. From no one would the suggestion made be received with more respect than from the distinguished writer M. Quetelet, whose works on probabilities and their application are known and appreciated throughout Europe.

The actual labours of the congress were concluded on the seventh day. After an adjournment for two hours, Dr. Farr introduced the question of the place to be fixed for the next meeting. Dr. Baumhauer, on behalf of the Government of the Netherlands, and M. Pioda, the official delegate from Switzerland, in the name of the Federal Council, pressed the claims of their respective countries, and the hospitable invitations of their Governments to receive the members of the congress at their next meeting. It was left to the preparatory commission to fix the locality and time.

His Excellency the Minister of Agriculture then, in a short but eloquent speech, pointed out the importance of the discussions just closed, and the advantage of bringing so many minds to bear on these great scientific questions, looking at them from different points of view, and eliminating the laws of social phenomena. He trusted that Italy would profit by the vast and new horizon opening up to her for statistical researches, and that the illustrious foreigners whose presence they had so much appreciated amongst them, would return to bear witness that Italy in her revival was giving herself with ardour to the highest pursuits of science and the severest studies of pure intellectual truth.

It is impossible to close this brief account without recalling with pleasure the kindness and courteous attentions which the foreign members met on all sides. His Majesty King Victor Emmanuel II received the foreign delegates at the Pitti Palace, and invited them to a grand banquet at the close of the congress. The President of the Ministerial Council (S. Ratazzi) and the Minister of Agriculture, Industry, and Commerce (S. De Masiis), gave a magnificent reception to several hundred persons in the historical Palazzo di Podesta, now a national museum of rare antiquities. The syndic and municipality of Florence welcomed them with musical entertainments at La Pergola, and the municipal palace in the Cascine. The renowned city of Bologna, through its syndic the Marquis di Pepoli, offered its hospitality, and by all Italians, whether statesmen, professors, or men of science, the utmost courtesy and genuine kindness were shown to their visitors.

Even if these statistical congresses had no other object than to bring together thoughtful men with the same pursuits, combining their experience, and knowing where to look for mutual aid or special knowledge in any particular inquiry, they would effect a vast amount of good by laying down a broad and uniform, instead of an individual and narrow, basis of research in each question. But they do more than this. By the united action of official authorities, they bring the resources of each Government to the collection of statistics in such a form that no labour is thrown away, and no expenses uselessly incurred. The great questions which concern the growth, social condition, and permanent prosperity of nations may be elucidated by comparisons on the grandest scale and under different conditions, and the knowledge of the true laws which govern them thus reduced to a science, and applied to extend the domains of human knowledge and advance the social progress of all countries.

On the TRADE *with the* COLOURED RACES *of* AFRICA.

By ARCHIBALD HAMILTON, ESQ.

[Read before the Statistical Society, 18th February, 1868.]

I PROPOSE to take a general survey of the commerce between the coloured or Ethiopic races of Africa and the civilized world; and then briefly to consider the means by which that commerce, hitherto confined to the coast, can be extended to the interior.

The Ethiopic races inhabit that vast country south of the great desert, which may with tolerable accuracy be defined by a line drawn from the River Senegal to Cape Guardafui as its northern boundary; while its southern limit is the Cape Colony. It thus comprises about forty-five degrees of latitude, and is bounded, east and west, by the Indian and Atlantic Oceans; its area being equal to one-fifth or one-sixth part of the habitable globe.

Apart from any question of inherent inferiority of race, it is obvious that the country occupied by the Ethiopians is not calculated to engender civilization. It lies in too compact a mass, unbroken by bays or inlets; nor do the rivers afford either defensive frontiers or the means of communication and transport equal to those which divide and traverse the other divisions of the globe. The great desert cuts it off from the ancient civilization of which the Mediterranean was the centre, while the intercourse subsequently established by the Arabs, is limited and impeded by the same cause. The rivers are all subject to a dry season, which renders them during a part of the year unfit for inland navigation; and they are all more or less interrupted by rapids and cataracts—though it is true equal obstacles have not hindered the St. Lawrence from becoming the great means in the settlement of Canada.

There are two circumstances which give reason to hope, not only that our commerce with the races dwelling on the coast will be rapidly enlarged, but also be extended inwards. I mean the almost total stoppage of the Christian or transatlantic slave trade, and the rapid strides which have of late been made in the exploration of the continent.

In 1854 Livingstone penetrated from the Cape Colony to Loanda, and thence he crossed to Quillimane, tracing the course of the Zambesi on his way. Subsequently he explored Lake Nyanza, and it has recently been a public consolation to learn that he is now on his way home, most likely down the Nile, to complete our knowledge of Lake Tanganyika, first discovered by Burton. Barth has supplemented the labours of Denham and Clapperton in Central Africa, between the Niger and Lake Tchad, the most hopeful and important district of all. Speke and Grant advancing, northwards from Zanzibar, have discovered Lake Victoria Nyanza; while Baker, coming in the opposite direction from Egypt, has terminated the long mystery as to the source of the Nile, having beheld it issuing from the great lake Albert Nyanza. Brilliant as have been the results of these explorations, and others of lesser note, the field of adventure is far from exhausted; much remains for discovery before the map of Africa can be filled up, and the future highways of commerce be traced out. Happily, however, the spirit and enterprise of our countrymen are more likely to be stimulated than diminished by the exploits of the celebrated travellers to whom I have alluded.

There is one subject which occupies a large space in every book of African travel—the slave trade. I do not intend to enter into any details of the horrors attending that traffic; but as human beings have for three centuries been one of the chief exports from Africa, this subject is inseparably mixed up with that of legitimate commerce; because of the anarchy which the slave trade everywhere creates, the ceaseless kidnapping—slave hunts—and wars undertaken expressly to obtain captives, to the destruction of settled industry. It is even the principal cause of the difficulties experienced in exploring the country; and has, moreover, brutalised the natives on the coast far below the condition of the people in the interior.

Within the last few years success seems at length to have crowned our efforts to suppress the transatlantic slave trade, but the Mahomedan traffic continues unchecked, or nearly so. Owing to their contraband nature, it is impossible to obtain accurate information of either at any period. The matter was carefully investigated by Sir Fowell Buxton, who estimated the number of slaves exported at 170,000 per annum so recently as 1839-40, on data which have never been impugned. To this must be added a loss of life from slaughter in wars undertaken for the capture of slaves, and subsequent mortality, so that the figures are thus stated by Buxton:—

	Delivered.	Loss of Life.	Total.
Transatlantic slave trade	120,000	280,000	400,000
Mahomedan	50,000	50,000	100,000
Total	170,000	330,000	500,000

It would, appear, however, from more recent information, that the loss of life from the Mahomedan trade is considerably under stated by Buxton.

Such was the most moderate estimate that could be formed of the transatlantic slave trade in 1840, and there is reason to believe it was stimulated for several years by the alteration of our sugar duties in 1846. The first effectual blow it received was in 1853 and 1854, when Brazil abolished the trade and importations ceased; so that Cuba thenceforward has continued the only importing country. A return of the slaves exported from the west coast between the years 1848 and 1864, will be found in Appendix, Table I; since the latter year the trade has almost ceased, a stray cargo now and then being all that has reached Cuba. The authorities there have of late been in earnest in preventing importations, and it is gratifying to observe that public feeling in Cuba is becoming adverse to their continuance.

I shall now briefly explain the progress which has been made in substituting legitimate commerce for the slave trade along the west coast; and may remark that this has nowhere been accomplished without compulsion of some kind in the first instance; and there is too much reason to fear that, in case of a renewed demand, the trade would once more break out were our vigilance relaxed. No export of slaves has taken place for many years from our settlements on the west coast, viz., the Gambia, Sierra Leone, and Cape Coast Castle; nor from the adjacent territories under the influence of those settlements; nor from the republic of Liberia, nor the Dutch settlements on the Gold Coast; so that if we except the River Nunez, the coast between the Gambia and Dahomey, say for 1,500 miles, has for many years been free from the slave trade. Relying on this immunity, it was resolved in February, 1864, to withdraw the squadron entirely from this part of the coast; the consequence was, that in September following, a cargo of slaves was shipped from the River Nunez (situated between the Gambia and Sierra Leone), but with which there has been little intercourse from either settlement.

A general table of imports and exports to and from the British possessions on the west coast will be found in Appendix, Table II, together with details of the principal articles of produce in Tables III, IV, V, and VI.

It is worthy of note that for many years great pains have been taken by the missionary societies with the education of the liberated Africans at Sierra Leone, and the children born in the colony. During six years ending 1864, between seventy and eighty schools have been maintained, at a cost of 5,000*l.* per annum, which have been attended by 57,000 scholars, or an average of 9,500 per annum. An important class of educated blacks has thus grown up, who, together with the Liberian blacks, are actively engaged in trade all down the coast; and ever since the mail steamers were established, in 1852, they have availed themselves freely of the facilities thereby offered, to trade at the various places on the coast at which the steamers call. As many as 150 per month of these native traders pass in the mail steamers between the different stations. Besides Sierra Leone, they are numerous at the Gambia, Cape Coast, Accra, and Fernando Po, while they swarm at Lagos. They are everywhere useful as middlemen, and have, in fact, driven all white traders on a small scale out of the field at Sierra Leone; and the more extensive European merchants employ them as agents and clerks in their operations on the neighbouring rivers. Of late it has become the ambition of these traders to order goods direct from England, paying for them in produce. I shall presently point out how the educated blacks are capable of playing a most useful part in opening up trade with Central Africa. (See Note, Appendix XII.)

Whilst on this subject, I may allude to the progress made by the republic of Liberia, which occupies a coast line of about 600 miles.

The first settlement of emancipated slaves from the United States was in 1820, and in 1847 it was declared a free republic. It now contains about 30,000 civilized inhabitants, about 15,000 of whom, with their descendants, are from America. From 300,000 to 400,000 aborigines reside within the territory of Liberia, and are brought more or less directly under the influence of her institutions. There are about fifty churches in the republic, representing five different denominations. The educated blacks in Liberia and Sierra Leone, are intensely religious, and the various sects, Episcopalians, Wesleyans, Baptists, Independents, &c., are represented among them just as in England and the United States. Differing from Sierra Leone, Liberia has been governed since 1847 by blacks alone. Their constitution resembles that of the United States, and if their proceedings are at times calculated to raise a smile as a parody upon their model, it is impossible to deny the good sense, frugality, and success which have attended them so far. In 1861 the revenue was $149,550, against an expenditure of $142,831. The presidential message for 1866 alludes, with just pride, to the foundation of the Liberian college, and lays down a plan for national education. There can be no doubt that this well ordered and well governed community will play a great part in the civilization of Africa. The present state of matters in America will lead to a considerable accession of strength, 600 emigrants having been despatched in the course of 1866, and 942 in 1867. The American Colonisation Society, which founded the settlement in 1820, now regularly employ a vessel in the conveyance of emigrants. The settlers have already been able to repel all attacks from the natives, and, as they gain strength, will become aggressive and extend their influence inwards.

For the year 1864 the imports amounted to $162,930, the exports to $172,608, particulars of which will be found in Appendix, Table VII.

I come next to the British settlement of Lagos, which was for many years the head-quarters of the slave trade in the Bight of Benin. Situated at the entrance to an extensive lagoon, affording boat navigation eastward as far as the River Benin, and westward to the notorious kingdom of Dahomey, it possessed unequalled facilities for the slave trade, enabling the slavers to dodge our cruisers. In 1851 a treaty was forced on the chiefs and king, and a consulate was established, which continued until 1861; but those measures being inadequate, we took possession of the island of Lagos and of one or two points on the adjacent coast, which, with a couple of gunboats on the lagoons, has answered our purpose effectually.

A considerable trade in palm oil had grown up under the Treaty of 1851, and I give in Appendix, Table VI, a note of exports, as far as I have been able to ascertain them. Since we took possession the trade has been seriously interrupted by a war between Abeokuto and Ibadan, caused by the latter desiring a direct road to the white man at Lagos, and so avoid paying toll to the Abeokutans. The ground lost will soon however be recovered, and Lagos is rapidly becoming the seat of a flourishing trade.

Stopping the slave trade at Lagos had the effect of directing the current thence to Whydah, a port in Dahomey; but of late, owing to the cessation of the traffic, the king of that country has turned his attention to legitimate commerce. Some small trade had indeed been carried on chiefly by the French, concurrently with the slave traffic; and in 1864 a Liverpool company opened trade at Whydah, the king granting them his baracoon, or slave depôt, as a store for goods. Two other English houses have sent agents there, and a healthy trade is rapidly in course of development. I may mention, however, that so recently as May or June, 1867, the king tendered slaves in payment of a debt which he had contracted. I am unable to give particulars of this trade, which as yet is in its infancy.

I come next to the rivers, Benin, Brass, and Bonny (mouths of the Niger), also Old and New Calabar and Cameroons, generally classed together as the "oil rivers." These were at one time the noted haunts of slavers. In the years 1838 to 1840, treaties were forced upon the native kings and chiefs, by which they engaged to discontinue the slave trade. Courts of equity were afterwards established for the regulation of legitimate commerce, consisting of the captains, supercargoes, and agents of English houses, together with the kings and chiefs of the place. They take cognizance of all disputes between the English and the natives. A consul visits the rivers at intervals, and the system has been found to work successfully, with only an occasional resort to the squadron; in fact, the mere presence of a man-of-war has of late sufficed to restore order. I am enabled to show, from private statistics, the progress of the trade between the oil rivers and Liverpool. In the Appendix is a Table VIII, showing the registered tonnage of the vessels arrived from the rivers from the year 1839 to 1866 inclusive. The average during the first fourteen years was 17,932 tons; and during the last fourteen years 24,734 tons; but during the first fourteen years the trade was chiefly with Liverpool; Bristol participated, and of late years the Clyde has also shared. It will be observed that there are great fluctuations in the imports, which have been influenced by the prices at home, leading occasionally to suspension of trade when the natives were unwilling to submit to reduced prices; likewise to bad seasons.

The next point on the coast where there is a considerable trade, is the Gaboon river, which is under the control of the French Government, and has hitherto been thrown open to all nations. There are five English, two or three French, one German, and two Dutch houses engaged in the trade. The police regulations are good, and traders well protected: until recently the expense was borne by the Imperial Government, but within the last twelve months they have enforced a charge for a trading licence, and it is expected will levy a duty of 4 per cent. on imports and exports so as to assist in defraying the expenses of government. At our colonies a revenue is collected by similar import duties. I have been unable to obtain returns of the imports and exports, but these will enter into the general tables of trade with the west coast.

Further south we come to the River Congo, notorious as the last seat of the slave trade on the west coast. Within the last five or six years, as many as twenty-three slavers have been counted at Ponta de Lena at one time. Legitimate trade made no progress, until at last an effectual check was given to the slave traffic by the adoption of a very obvious course—our Government entered into a contract to coal the preventive cruisers on the spot, instead of resorting to Fernando Po or Ascension for a supply, leaving the coast and rivers for the time unguarded.

To prove how effective has been the blockade since this arrangement was adopted, I may state that within the last twelve months

700 slaves were sent down for shipment, and two slavers appeared on the coast to embark them—one was captured and the other left the coast in despair. When my informant left the Congo, the slaves were still on hand, and have doubtless either been set free or put to some useful occupation ere this. Cut off from the slave trade, the natives are now eagerly engaged in raising produce, while the Portuguese slave dealers are rendering good service as middlemen in the up-country trade. One Dutch, one American, three French, and three British houses have established themselves in the Congo, with branches along the neighbouring coast as far as the Portuguese settlements at Angola, and an active trade is now carried on in palm oil and kernels, ivory, coffee, indiarubber, copper ore, gum copal, and ground nuts. This trade has probably increased tenfold within six years, and the exports for 1867 have been estimated at 250,000*l*.

Besides the points on the west coast to which I have alluded, there is an active trade carried on by the French at their settlements at Senegal and Gorée, as well as elsewhere; by the Dutch at their settlements on the Gold Coast; as also by the Hanse Towns and Americans at various points; while the Portuguese settlements of Angola and Benguela are little developed, though there are valuable copper mines within their territory.

The trade carried on by these countries figure in the general tables of African commerce. But to show the extent of the west coast trade, there are tables in the Appendix (Table IX) showing the imports and exports to the United Kingdom for ten years ending 1866, as also the imports from thence of ivory and bullion. The growth of the trade with the United Kingdom will, however, be best shown by the table of palm oil imported since the year 1790—also in the Appendix, Table X.

As regards the goods shipped to the west coast, I may state that the demand has for the last ten years or so, been constantly for an improved quality. The consumption of British manufactures seems limited only by the possibility of supplying produce or value in exchange; thus at the time when returns were unhappily obtained chiefly in slaves, the exports from the United Kingdom were in—

	£
1805	1,150,000
'06	1,650,000
'07 (slave trade abolished)	1,030,000
'08	800,000
'11	400,000
'27	155,000

This was the lowest point to which they dwindled. About 1830 the palm oil trade became important, so that the exports of British manufactures rose in—

	£
1830 to	250,000
'35	300,000
'40	490,000
'45	530,000
'50	640,000
'55	1,100,000
'60	1,300,000
'65	1,100,000

As it has been often stated that considerable supplies of cotton may be derived from Central and Western Africa, I subjoin the quantities imported, viz.:—

	Cwts.
1856	308
'57	1,026
'58	2,116
'59	1,816
'60	2,069
'61	1,389
'62	3,438
'63*	—
'64*	—
'65	7,126
'66	9,512

It is true the cotton plant is indigenous, and the soil and climate over an enormous district are capable of supplying more than we even now consume; still the needful European superintendence for a large production cannot be supplied. The means of transport for so bulky an article do not exist; neither could the capital required for implements, gins, presses, &c., be prudently invested unless under British rule; so that many years must elapse, in my opinion, and many changes must occur, before we can look for any quantity of African cotton, such as would be sensibly felt in our markets.

As regards the trade with the natives bordering on the Cape and Natal colonies, as well as the Dutch republics beyond the frontiers, it is impossible to arrive at exact data. Speaking generally, we may assume that the greater part of the ivory and ostrich feathers from the colonies is obtained from the natives, or through their agency and assistance, as well as a quantity of hides and skins. Commerce is gradually extending northwards; for example, it is not many years since Livingstone discovered Lake Ngami, and now it is within the ordinary range of the traders in quest of ivory and ostrich feathers. The Caffres and Fingoes settled within the colony are making marked progress; they now participate in the

* Importations ceased, owing to Abeokutan war above-mentioned.

carrying trade of the colony, conveying merchandise in well appointed waggons from the coast to the up-country, and bringing down the returns of produce. Their consumption of European goods is increasing, and they now require these to be of better quality; a remark which applies likewise to the natives beyond the limits of the colony.

As a rough guess merely, I am inclined to set down the trade between the colonists and the natives beyond the borders, as follows:—

	£
Ivory, one-half exports from Cape and Natal	20,000
Ostrich feathers, three-fourths ditto	47,500
Hides and skins	10,000
Cattle, sheep, goats, and sundries	100,000
Total	177,500

The eastern coast of Africa, northward of the colony of Natal, was the seat of a flourishing commerce of great antiquity, carried on by the Arabs, who occupied the coast nine hundred years ago, and founded numerous cities as far south as Sofala; some of which remain to this day, while the ruins of others have lately been discovered. They traded to India, Persia, Arabia and Egypt. It was at Melinda that Vasco de Gama, in the year 1498, procured a pilot to conduct him to India.

The Portuguese speedily possessed themselves of the principal positions on the coast for a range of about 2,400 miles. Their power did not, however, extend far inland, though they made efforts to advance into the country, chiefly with a view to reach the gold mines, the produce of which was brought down the Zambesi to Sofala (supposed by some to have been the Ophir of the Bible). But instead of the abundance they expected, they found the gold, as in other parts of Africa, had to be laboriously washed from the extraneous substances in which it is deposited.

As the power of the Portuguese nation declined, the Arabs re-established their independence over a portion of their former possessions, so that the coast from Delagoa Bay to Cape Delgado, 1,300 miles, is all that remains to the Portuguese, while the coast from Delgado to Magadoxo is claimed by the Sultan of Zanzibar, a range of 1,100 miles. Though in fact the sovereignty thus claimed by the Portuguese and Arabs is merely nominal, except here and there where forts are maintained. The natives beyond the range of these forts pay no taxes, and are in fact a source of terror to the Portuguese, who subsidize them at times, and have difficulty in holding their ground; indeed, Mr. Young has just brought word that they have been driven out of Sena and all places south of the Zambesi by the Zulus.

The blight of slavery has fallen upon their settlements, and of the prosperity for which they were at one time famous, scarce a shadow remains. Their trade consists in gold, ivory, and slaves. The slave trade, though contrary to Portuguese law, has unceasingly been carried on with the knowledge and connivance of the officials; happily it has been curtailed by the stoppage of the transatlantic traffic; but the Portuguese still supply the Arabs with slaves for the eastern markets. The only healthy symptom is a trade which seems likely to spring up between our colony of Natal and the Portuguese settlements at Delagoa Bay, Quillimane, and Mozambique. It is to be regretted the sovereignty over 1,300 miles of coast should be in the hands of a jealous and indolent people like the Portuguese, who by their commercial restrictions have, in fact, left their own subjects and the native chiefs little else to engage in but the slave trade, while they play this dog-in-the-manger policy on the coast of a fertile country, possessed of fine harbours and rivers more or less navigable. The Zambesi, the chief river of all, Livingstone has proved to be navigable for 700 or 800 miles inland, interrupted, it is true, by cataracts, but still offering facilities for commerce; while its tributary, the Shire, gives access from the sea to the great Lake Nyassa, with the exception of about 35 miles of rapids not navigable, as has been recently proved by Mr. Young of the Livingstone search expedition.

In the returns of trade between Portugal and her African settlements, no distinction is made between those on the west and east coasts; indeed they are kept so imperfectly that I am compelled to estimate them as follows, viz.:—

	£
Imports to Africa	300,000
Exports from „	409,000

In marked contrast with the Portuguese, the Sultan of Zanzibar encourages European commerce, both on the island so named and on the coast over which he claims sovereignty, though his influence does not extend over the heathen tribes beyond the range of his forts. The rapid development of the Zanzibar trade, is a striking proof of the resources of Eastern Africa, and confirms the accounts which have reached us of its ancient prosperity. The island is 48 miles long by 15 to 30 broad. In 1861 it contained about 250,000 inhabitants, and is supposed in the three following years, to have increased to 300,000, consisting of Arabs, half-castes, and settlers from India, together with negro slaves from the mainland; the latter carry on the cultivation, while all trade is in the hands of the Hindoos. In 1834 the trade of Zanzibar was reported to consist of a few imports from Arabia, and exports of gum and ivory to Bombay. In the year ending April, 1866, it was visited by sixty-six square-rigged vessels of all flags, amounting to 21,000 tons, besides of Indian, Persian, and Arab craft 8,000 tons; and, taking an average of five years ending 1865 the

	£
Imports were	349,562
Exports „	377,801

Of these the largest proportion is with British India; the Germans and Americans come next; the British trade is however on the increase.

These results will show what might be done on the coast with settled government; but the island of Zanzibar is an Arab settlement, and I have to do only with that portion of the trade which is derived from the Ethiopic races on the mainland. It is the chief mart for ivory, and Baker mentions that when he reached the neighbourhood of the Nyanza Lakes, he found the natives wearing cloth and possessed of other goods which had been passed along from Zanzibar. From the last consular report, I find the imports from the mainland to have been, on an average of five years, equal to 225,000*l.*, exclusive of slaves.

A considerable trade has been carried on between Zanzibar and Lagos in cowries, of which there is here a fishery.

The Zanzibar dominions are the only part of Africa where the slave trade is legal. There are recognised importations into the island during a certain portion of the year, under a system of passes; during the last five years the average number entered at the customs has been 14,000 per annum, on which a duty of $2 per head is levied. Adults are worth 2*l.* to 7*l.*, boys and girls 25*s.* to 50*s.* The slaves in Zanzibar are well treated, but, contrary to experience in America, they do not increase. General Rigby states that only 5 out of every 100 female slaves bear children; this he ascribes not to disparity of the sexes, but to their unwillingness to rear children which will be sold as soon as they grow into sufficient value. It is uncertain how many of the slaves annually imported are exported from the island to the eastern markets, but it is thought not less than 6,000. The regulations alluded to are indeed but a mere cloak for a traffic carried on by the Arabs from places on the coast as far south as Mozambique, to ports in the Red Sea and Persian Gulf. These, jointly with what are brought from the White Nile country and across the Great Desert from Central Africa, furnish slaves for Arabia, Syria, and Asia Minor, as far as Constantinople; while those carried to the Persian Gulf supply Mesopotamia, Persia, and the countries eastward as far as the Indus. The unhappy negroes are to be found sprinkled over the country, from the confines of Russia to Cashmere, and from the Indus to the Mediterranean.

The great difficulty we have experienced in our efforts to put down the Mahomedan slave trade, is due to its sanction by their religion. Slavery has existed among eastern races from the remotest ages, and is in some respects necessary to their society as constituted. They do not, therefore, understand our views; hence the chiefs and rulers, even though willing, might be unable to suppress it; but in fact they not unfrequently derive much profit from the traffic. We have hitherto been restrained from putting it down with a high hand, because our policy in the East is considered involved, lest we should excite the hostility of the countries concerned. But our proceedings on the east coast, as yet, are calculated to irritate, rather than seriously interrupt the traffic. It has been suggested that the coast should be scoured by steam gunboats, capable of following the dhows into shoal water, which would be less expensive than the cruisers at present on the station; while some of these latter could be employed with advantage on the Red Sea, so as to intercept the traffic brought from the White Nile as it crosses to Arabia. The Egyptian Government has been induced to place a steamer on the White Nile to check the evil; and I trust before we have done with Abyssinia, that something may be arranged to hinder the transit through that country.

I come now to the caravan trade by camels from Morocco and Tripoli, across the desert, which the Arabs and Moors carry on with Central Africa. We know but little of that between Morocco and Timbuctoo, except that the returns are chiefly in slaves. From Tripoli the caravans pass by way of Mourzuk to Bornou and Soudan—Kuka and Kano being the chief centres from whence branch caravans pass to other places. We are indebted to Denham and Clapperton, Richardson and Barth, for our knowledge of this commerce; and fuller details are expected in a work by Dr. Rohlf, now in the press in Germany. The cost of transport is about 30*l.* per ton, independently of duties and exactions on every pretext, except where the caravan is strong enough to bear down opposition; it takes four months to cross the desert, so that the cost of goods at Tripoli is quadrupled by the time they reach Kuka and Kano. The returns are therefore chiefly in slaves, with the addition of a small amount in valuables, such as gold, ivory, ostrich skins, and a little antimony. Ordinary articles of produce would not bear the cost of transport.

The return caravans frequently include over 5,000 slaves; large numbers of whom die of hunger, thirst, and fever on the way—the routes being actually marked by the whitening bones of the wretched beings who have sunk under the fatigues of the journey. A whole caravan has been known to perish for want of water.

At Mourzuk the slaves are sold, at from 20*l.* to 25*l.* per head, and from thence smuggled into Tripoli, Egypt, and the East. It is in vain that we have treaties with the Turkish and Egyptian Governments—the officials connive at the traffic; we have no means of enforcing the treaties in the case of this inland slave trade, such as we have at sea; but it happens we have a more effectual means of extinguishing it by the readier access to Central Africa afforded by the River Niger, so that we can undersell by that channel those engaged in the caravan trade, and bring down returns in produce such as can be raised in abundance. As an example of how this will work, I may mention that a gentleman having ascended the Niger in a steamer direct from England, to a point within a few days journey of Bedá, saw a caravan arrive there with European goods from Tripoli, part of the goods being loaf sugar made at Whitechapel! There can, in fact, be no doubt that so soon as the Niger trade has been developed, the caravan trade from Tripoli and Morocco will be extinguished, and with it will end the necessity of carrying back returns in the shape of human beings.

Having thus made the circuit of Ethiopia, I summarise its commerce with the civilized world in the Appendix, Table XI.

It is to be observed, that with the exception of ivory and gold, no legitimate commerce has yet been established with Central Africa. Europeans have in fact as yet traded with the natives dwelling on the mere outskirts of this vast territory, and though the trade on the west coast has reached respectable dimensions, it is still capable of being largely increased; and as I have shown, is rapidly increasing. That of the east coast is well nigh neglected.

The Arabs are the only people who have established a regular communication with Central Africa; by introducing the camel from Arabia, they were enabled to open paths through the desert, which had previously defied all efforts. By successive migrations they became in time the ruling power, introducing the Mahomedan religion and Arab civilization, the traces of which latter can be discovered to this day. They founded kingdoms, ample accounts of which have been transmitted to us by the Arab writers of the twelfth, thirteenth, and fourteenth centuries; while modern travellers have ascertained that these countries in Central Africa are now inhabited by a variety of races, some of them red or chocolate colour, and differing in shades of black. The black tribes again range from those with high features, approaching the Caucasian, to the common Negro. Of all these races the Felatahs are the most warlike, and they are supposed to have emerged from the condition of a mere pastoral tribe, and to have founded their powerful empire of Sokatu, within a century from this time. They are still encroaching on their neighbours.

With the exception of some few nomadic tribes, the people for security live chiefly in large towns fortified by mud walls, sufficiently strong to resist ordinary attacks, and round these towns cluster agricultural villages. The space within the walls is usually extensive, the houses are interspersed with cultivated fields, and this renders it difficult to estimate the population with accuracy; but it is certain that many of the towns contain as many as 50,000 to 60,000 inhabitants, though some travellers rate them as high as 100,000.

In all the towns markets are held every two or three days; large numbers from the neighbouring villages attend them; and although their dealings would appear to us trifling, still there is everywhere shown a strong love of trade.

Cotton and indigo are cultivated, and in many towns there is a considerable manufacture of cotton cloth, noted for its excellent quality and the durability of its dye, which latter equals, if it does not excel, in quality anything done in Manchester. Besides cloth, there are manufactures of leather, as saddlery, bags, cushions, &c. The art of smelting is understood, and in some places gold chains and ornaments are manufactured with creditable taste and skill. The trade of the blacksmith is everywhere plied. At the Exhibition of 1851, the late Mr. Robert Jamieson exhibited some specimens of native copper ware, tinned inside, rudely done no doubt, but proving they possess that as well as several other useful arts.

Salt is a prime article of commerce; it is brought by caravan from certain points in the great desert, and likewise from the coast.

Some of the canoes on the Niger, approaching the sea, are large enough to convey upwards of one hundred people; and Park saw one as high up the river as Sego, carry four horses and six or eight men.

The medium of exchange differs in various places. In Kano it is cowries; in Bornou cloth; in Loggun iron, where indeed, in Denham's time, a kind of iron coinage was in use, and Baikie saw the same thing in 1854, when he ascended the Tchadda. In general, in all important transactions, the value is expressed in the price of a slave.

The religion of the dominant races is Mahomedan. The only written character is the Arabic, and the Koran is, of course, read in all mosques—though sometimes the reader does not understand a word, and the hearers very seldom, if ever.

Disputes are adjusted by palaver, when professed advocates, who can expound the Koran, conduct the cause of the litigants, often with much ingenuity. These palavers are, indeed, everywhere a marked feature of the native races, as they are, one and all, noted for loquacity.

The proportion of slaves to free population differs in various countries. At Kano, Clapperton says the free population was in the proportion of one to thirty slaves; other travellers estimate in other places the proportion of slaves to vary from two-thirds to four-fifths. There is, however, a wide difference between the domestic, or born slaves, who form the bulk, and slaves who have been purchased or captured. The domestic slaves have certain well established rights, only give up a portion of their time to their masters, and cannot be sold out of their districts except for crime, adjudged in due form by palaver. In short, it is rather a mild form of serfdom than slavery.

All these facts bespeak a certain security of property and industry protected, as well as the elements of civilization. There are, however, no traces of antiquity—no works of art—and it is wonderful that so much of the Arab civilization should have survived, amid the constant slave hunts and wars which for three centuries have prevailed to supply the demand for slaves for America. That demand has only now ceased, so that slaves are no longer sent down from these countries to the coast, and they are, therefore, ripe for legitimate commerce. To this rich and populous region there is ready access by the River Niger, next in size to the Nile, but destined to play a still more important part in the civilization of Africa, affording as it does, together with its equally important branch, the Tchadda, a noble highway to the very heart of the continent.

The history, too, of the Niger is not a little strange. The sources of other great rivers have frequently been the object of curiosity, but the Niger alone has been distinguished by the interest attaching to its junction with the sea. Its existence was successively known to the Egyptians, Greeks, Romans, and Arabs, the latter, indeed, having settled on its banks at Timbuctoo. An enormous body of water was known to flow eastward towards the great desert; it was supposed to be lost in the sands of Sahara, or to be a branch of the Nile; and other theories innumerable were from time to time put forth, until 1830, when the problem was solved by Richard Lander, who, extending the previous achievements of Park, followed its lower course to the sea, and laid open the long-coveted channel for commerce with Central Africa.

The first attempt to render Lander's discovery available, was by a company formed in Liverpool, which sent out an expedition consisting of two steamers, accompanied by the late Mr. Macgregor Laird, who published an interesting account of its proceedings and misfortunes. Having entered the river too late in the season, the steamers grounded at the confluence of the River Tchadda. Out of 48 men 9 only survived, and the capital of the company was lost.

Mr. Robert Jamieson, a merchant of Glasgow, next fitted out a steamer in 1839. His operations were commercially unfavourable; but they added greatly to our knowledge of the Niger and its delta, besides exploring the Rivers Benin and Old Calabar. The loss of life, though great, was not so deplorable as on the previous attempt.

In 1841 followed the well known Government expedition, which cost the country upwards of 200,000*l.*, and accomplished absolutely nothing. The failure of the expedition was foreseen by Mr. Jamieson and Mr. Laird, while the late Mr. Thomas Stirling wrote to Lord John Russell predicting, with marvellous accuracy, the misfortunes which ensued. Though the sickness was general, the loss of life did not exceed 53 out of a complement of 303.

In marked contrast with this deplorable failure was the expedition fitted out by Macgregor Laird in 1854, at his own risk, but partly assisted by Government. Under charge of Dr. Baikie the steamer ascended the Tchadda 300 miles beyond the point previously reached, and returned to Fernando Po after having been in the river 118 days *without the loss of a man.* This gratifying fact, so different from all previous experience, was due to better sanitary arrangements, and the use of quinine as a preventive; also to the plan of manning the ship with blacks, and sending the smallest possible complement of Europeans to officer the ship and work the engines. By the observance of these rules the frightful mortality has been obviated, which previously was the sure attendant of a river expedition.

Notwithstanding that this expedition was mainly one of exploration, the produce picked up in exchange for outward cargo realised 2,000*l.*

Encouraged by these results, Mr. Laird entered into a contract with Her Majesty's Government, binding himself for a small subsidy to maintain steam communication on the river and its tributaries, and to carry goods and passengers for all who might offer. He further embarked a considerable capital in trading stations at various points on the river.

	£
In 1857 the returns realised about	4,000
„ '58 owing to various drawbacks they were	2,500
„ '59 they realised about	8,000

In 1860 there was no ascent, owing to the hostility of the natives in the delta and the absence of a promised convoy. This, however, led to the conclusion that the best way to remove the hostility of the people in the river and delta is to trade with them at proper intervals, since it was proved on this occasion that their hostility arose, not from the presence of white men in the river, but because the steamers gave them the go-bye, whereas they have been in the habit of levying dues on all canoes passing up and down.

Unhappily, while maturing these plans, Mr. Laird died in 1861, and it became my duty as his executor to close up these most interesting operations. Accordingly the steamer made its final ascent in 1861, and the year's trading in the delta and river realised 10,000*l.*

During the next four years a gunboat was sent up annually with supplies for Dr. Baikie at the confluence, where he held the post of agent for Her Majesty's Government, a post which has since been raised into a consulate, and is now held by Mr. Lyons McLeod.

The Niger enterprise has since been taken up by a Manchester company, unsupported by a subsidy. In 1865 they sent a steamer up to the confluence with a well-assorted cargo and an experienced agent, which resulted, I understand, in the most successful year's trading yet attained. The operations of 1866 and 1867 have not transpired, but if not equally successful it has not been due to any inherent obstacles, but rather to the limited scale on which they have been conducted. Whatever may be the result of the spirited operations of this company, they have certainly made valuable additions to our stock of experience.

The truth is, that at present no steamer will pay her expenses on the river. The caravan trade has to be diverted gradually from the desert routes to Tripoli and Morocco towards points on the rivers Niger and Tchadda. New markets have to be established, and new industries have to be created, to supply returns in produce, before the traffic will suffice to cover the heavy expense of steam navigation. Returns will be obtained in ivory, shea butter, indigo, and other articles of produce, and already the native traders, availing themselves of the steamers, have brought down native cloths made in the interior, tobes, fine mats, and other goods, which sell well on the coast. But to effect any good in the Niger steam navigation is indispensable; and to maintain this, a subsidy for five years I consider would suffice, as by that time it would become self-supporting. Whoever embarks in this enterprise without a subsidy, must be prepared to incur heavy loss for several years, merely, if successful, to open the way to others who would be eager to reap the fruits of his outlay.

Impressed with these views, I urged on the Government the advantage of continuing the subsidy granted to the late Macgregor Laird, to whoever would carry out his plans, with such amendments as experience has since suggested. These were, to place suitable steamers on the river for a monthly service to the confluence during eight months of the year, while it is navigable for cargo vessels; to offer every inducement to the native traders (educated blacks from Sierra Leone and Liberia) to enter into the trade and become a useful class of middlemen; to employ them freely as clerks and agents under European superintendence; to form trading stations at proper intervals, and keep the same stocked with goods, so as to obviate the hostility of the natives, and thus make sure of the ground as far as the confluence; operations could subsequently have been pushed up the Tchadda in sea-going steamers 300 miles above the confluence, or 570 from the sea, and up the Niger 470 miles from the sea to the rapids near Boussa, beyond which the Niger is again available for transport through a fertile country as far as Bammakoo, a distance of nearly 1,000 miles.

An influential company offered to embark 80,000*l.* in steamers and trading stations to carry out these operations, stipulating for a subsidy of 6,000*l.* per annum for five years, which they considered would be equivalent to sharing the loss on the first two or three years equally between the Government and the company. I regret to say, that although this offer was approved by Lord Palmerston, and recommended for adoption by Lord Russell at the Foreign Office, in which department the matter originated—the scheme was vetoed at the Treasury.

I trust I may be excused for dwelling so long on the Niger enterprises, because it is impossible to overestimate the importance of that majestic river, as the only available highway to the Mahomedan countries of the Soudan—populous, productive, and semicivilized—the key to the regeneration of Africa.

In conclusion, I may be allowed to express a hope that the success which has at length crowned our efforts for the suppression of the slave trade on the west coast, may not lead to a premature withdrawal of the squadron and the relaxation of our vigilance—but rather that the same system may be extended to the east coast, so that a flourishing trade may be established there as it has been on the west—that we may press for more stringent treaties with Persia and Turkey, Egypt and Muscat, so that the sea-borne slave trade may be stamped out wheresoever it may be found—and that although we cannot directly reach the inland slave trade it may be as effectually extinguished by the encouragement of steam navigation on the Niger. By these means it may be that the gloom which has for long ages settled upon this great continent, will, in our time, be lifted up, and the dawn of commerce, civilization, and Christianity be hailed throughout the length and breadth of Africa.

APPENDIX.

I.—*Return of the Number of Slaves Exported from the West Coast of Africa since* 1848.

Year.	Imported into Brazil.	Imported into Cuba.	Imported into Portuguese Colonies.	Captured by Her Majesty's Cruisers.	Total Exported.
1848 ...	60,000	No return	—	5,972	65,972
'49	54,061	8,700	—	4,674	67,435
'50	22,856	3,100	—	6,650	32,606
'51 ...	3,287	5,000	—	1,020	9,307
'52	800	7,924	—	237	8,961
'53	None	2,500	—	None	2,500
'54	"	11,400	—	"	11,400
'55	90	6,408	—	90	6,588
'56	No slaves imported since the year 1855	7,304	—	None	7,304
'57		10,436	—	1,408	11,844
'58 ...		16,992	—	33	17,025
'59		30,473	—	988	31,461
'60 ..		24,895	—	2,655	27,550
'61 ...		23,964	900	3,238	28,102
'62		11,254	561	1,989	13,804
'63		7,507	16	1,425	8,947
'64		6,807	—	317	7,124
	141,094	184,664	1,477	30,696	357,930

II.—*Imports and Exports of the British Possessions on the West Coast of Africa, including Bullion and Specie.*

[000's omitted.]

Year.	Sierra Leone.		Gambia.		Gold Coast.		Lagos.	
	Imports into.	Exports from.	Imports into.	Exports from.	Imports into.	Exports from.	Imports into.	Exports from.
	£	£	£	£	£	£	£	£
1855....	115,	170,	126,	216,	149,	141,	—	—
'56....	153,	180,	109,	176,	106,	121,	—	—
'57....	172,	289,	119,	202,	118,	124,	—	—
'58 ...	140,	225,	119,	227,	122,	154,	—	—
'59....	170,	247,	76,	110,	115,	118,	—	—
1860....	173,	304,	73,	109,	112,	110,	—	—
'61....	168,	213,	109,	137,	168,	146,	—	—
'62....	144,	269,	100,	154,	145,	102,	78,	62,
'63....	209,	296,	176,	142,	77,	54,	171,	158,
'64....	190,	202,	105,	132,	—	—	121,	167,
1865....	—	—	129,	139,	—	—	114,	176,
'66 ...	—	—	—	—	—	—	221,	263,

SIERRA LEONE.

III.—*Value of the Principal Articles Exported in each of the Ten Years from* 1855 *to* 1864.

[000's omitted.]

	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.
	£	£	£	£	£	£	£	£	£	£
Bemiseed	6,	5,	5,	5	3,	7,	2,	3,	4,	4,
Camwood	7,	5,	7,	6	8,	8,	2,	2,	1,	—
Ginger	5,	6,	6,	8	7,	5,	7,	9,	15,	16,
Gold	7,	7,	15,	9	8,	44,	6,	5,	4,	—
Ground nuts	28,	25,	26,	14,	25,	34,	17,	29,	85,	33,
Hides..................	12,	35,	34,	40,	47,	33,	23,	26,	38,	27,
Ivory	1,	2,	8,	3,	2,	3,	1,	2,	1,	—
Palm oil and kernels	46,	62,	77,	46,	45,	60,	61,	52,	82,	32,
Timber	26,	10,	27,	41,	19,	13,	5,	15,	2,	—
Miscellaneous	32,	23,	88,	53,	83,	97,	86,	125,	114,	90,
Total	170,	180,	288,	225,	247,	304,	213,	268,	296,	202,

GAMBIA.

IV.—*Value of the Principal Articles Exported in each Year from* 1855 *to* 1864.

[000's omitted.]

	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.
	£	£	£	£	£	£	£	£	£	£
Ground nuts........	150,	130,	163,	189,	69,	80,	101,	134,	103,	79,
Hides..................	23,	9,	12,	14,	17,	9,	11,	8,	16,	25,
Wax	25,	21,	9,	16,	12,	8,	12,	6,	9,	11,
Miscellaneous	18,	16,	17,	8,	12,	12,	13,	6,	13,	17,
Total	216,	176,	201,	227,	110,	109,	137,	154,	141,	132,

Note.—Gambia trade since 1859 affected by internal wars.

GOLD COAST.

V.—*Value of the Principal Articles Exported in each of the Ten Years from* 1855 *to* 1864.

[00's omitted.]

	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.
	£	£	£	£	£	£	£	£	£	No returns later than 1863
Gold dust	38,1	59,3	69,0	96,1	78,5	71,2	85,4	7,8	27,0	
Gum	1,7	4	1,3	4	1,0	1,6	2,3	2,7	9	
Ivory	1,0	2,0	1,5	2,0	2,9	2,8	1,0	1,3	1,5	
Monkey skins	4		No return			2,9	3,2	2,2	1,1	
Palm oil	80,0	54,5	50,4	55,4	38,4	26,6	52,4	85,9	22,6	
Miscellaneous	24,5	4,8	2,2	2	2,7	5,3	1,5	2,2	6	
Total	140,7	121,0	124,4	154,1	118,5	110,4	145,8	102,1	53,7	—

Note.—Trade of Gold Coast with Ashantee stopped in 1863 by war.

LAGOS.

VI.—*Value of the Principal Articles Exported in each of the Five Years from* 1862 *to* 1866.

	1862.	1863.	1864.	1865.	1866.
	£	£	£	£	£
Cotton and cotton cloth	1,451	1,475	16,148	10,600	24,600
Ivory	61	1,208	512	1,300	3,200
Nut oil	—	14,474	6,444	11,300	10,600
Palm oil and kernels	60,069	138,250	123,107	104,500	204,910
Miscellaneous	351	2,934	19,882	48,000	19,400
Total	61,932	158,341	166,093	175,700	262,710

VII.—*Exports from Liberia in* 1864.

[00's omitted.]

Description.	To United States.	To United Kingdom.	To Hamburg.	To Holland.	To Sierra Leone.	Total.
	$	$	$	$	$	$
Palm oil	36,3	23,6	70,5	7	1,4	132,6
Camwood	1,3	1	3,9	—	—	5,3
Sugar	9,9	2,1	4	—	2,5	14,8
Syrup and molasses	1,6	4	—	—	1	2,2
Palm kernels	—	3	9,2	—	2	9,7
Hides	1	—	—	—	—	1
Country cloths	—	5	—	—	2,7	3,1
Coffee	2,8	4	1	—	—	2,9
Lumber	—	1	—	—	1	2
Ivory	6	—	6	1	—	1,3
Cotton	3	—	—	—	—	3
Rice	—	—	—	—	1	1
Total	52,4	27,5	84,7	8	7,1	172,6

Note.—Total imports $162,930.

VIII.—*Registered Tonnage of Vessels from Oil Rivers into Liverpool.*

[000's omitted from total column only.]

Year.	Bonny and New Calabar.	Old Calabar.	Cameroons.	Benin.	Brass.	Total.
1839	9,867	2,124	772	728	—	13,
1840	8,089	880	1,442	1,031	—	11,*
'41	11,193	4,073	1,114	1,198	—	18,
'42	9,830	3,698	1,667	1,197	—	16,
'43	9,482	3,903	1,179	1,049	232	16,
'44	8,620	3,500	2,376	1,318	618	16,
1845	11,711	4,465	2,525	2,066	1,088	22,
'46	8,670	3,777	2,695	1,030	1,090	17,
'47	9,002	5,405	1,825	1,995	1,528	19,
'48	9,274	4,509	1,691	1,015	1,526	18,
'49	10,753	2,445	1,888	1,345	2,019	18,
1850	9,084	4,093	1,556	845	986	17,
'51	16,195	3,090	1,788	1,106	1,762	24,
'52	11,353	3,673	1,562	1,352	1,550	19,
'53	18,443	4,613	1,259	906	1,466	22,
'54	15,192	5,218	1,439	1,621	2,281	26,
1855	20,000	3,320	2,474	2,642	2,026	30,†
'56	19,583	2,867	1,439	2,238	2,210	28,
'57	18,793	6,679	2,627	1,878	3,821	29,
'58	15,740	2,167	1,539	2,418	2,637	25,
'59	11,561	4,456	2,187	1,324	2,747	22,
1860	16,076	4,520	1,918	3,224	2,339	28,
'61	13,824	3,395	1,916	1,643	2,450	23,
'62	16,830	2,776	2,168	1,641	3,425	27,
'63	18,658	1,449	1,610	3,716	2,507	23,
'64	12,792	1,288	1,218	2,531	1,894	20,
1865	14,676	4,121	671	3,055	2,529	25,
'66	9,019	1,555	1,891	3,636	2,489	19,
Average 14 years to 1852 inclusive	10,219	3,545	1,684	1,234	1,240	18,
Average 14 years, 1853 to 1866 inclusive	14,728	3,459	1,740	2,320	2,487	25,

* The lowest amount is in 1840, 11,392.

† „ highest „ '55, 30,462.

Note.—The cargoes consist principally of palm oil, together with small quantities of ivory, gum, ebony, bar, and camwood, and of late years palm kernels.

IX.—*Trade of the United Kingdom with the West Coast of Africa.*

[000's omitted.]

Year.	Real Value of Imports to United Kingdom.	Real Value of Exports from United Kingdom.	Ivory.	Gold and Silver Imported to United Kingdom.	Gold and Silver Exported from United Kingdom.
	£	£	Cwt.		
1857	2,062,	1,492,	2,	Not given separately before 1858	West Coast not given separately before 1862
'58	1,776,	1,189,	2,	114,	
'59	1,690,	1,244,	1,	101,	
1860	1,942,	1,558,	1	101,	
'61	1,710,	1,559,	1,	80,	
'62	1,950,	1,626,	1,	106,	54,
'63	1,603,	1,275,	1,	78,	51,
'64	1,360,	1,102,	2,	120,	57,
1865	1,750,	1,327,	2,	132,	47,
'66	1,971,	1,376,	3,	139,	60,

Note.—Average of ivory for ten years, from 1830 to 1840, 2,154 cwt.
„ „ '57 „ '66, 1,672 „

X.—*Palm Oil Imported into the United Kingdom from the West Coast of Africa since the Year* 1790.

[Tons in this table given in round numbers.]

Year.	Tons.	Year.	Tons.	Year.	Tons.
1790	100	1816	1,200	1842	21,000
'91	200	'17	1,500	'43	20,400
'92	200	'18	1,500	'44	20,700
'93	200	'19	3,700	1845	25,000
'94	100	'20	800	'46	18,300
1795	100	1821	5,100	'47	23,800
'96	Records burnt	'22	3,100	'48	25,500
'97	100	'23	3,300	'49	24,700
'98	200	'24	3,700	1850	22,400
'99	200	'25	4,300	'51	30,400
1800	200	1826	5,000	'52	26,200
'01	200	'27	4,800	'53	31,800
'02	400	'28	6,300	'54	37,600
'03	500	'29	9,000	1855	40,500
'04	300	'30	10,700	'56	39,300
1805	200	1831	8,100	'57	42,700
'06	400	'32	10,900	'58	38,700
'07	100	'33	13,300	'59	32,900
'08	500	'34	13,500	1860	39,200
'09	700	'35	12,900	'61	35,700
1810	1,300	1836	13,900	'62	42,100
'11	1,200	'37	11,100	'63	38,700
'12	600	'38	14,000	'64	32,800
'13	Records burnt	'39	17,200	1865	39,700
'14	1,000	'40	15,800	'66	39,200
'15	2,000	'41	19,900		

XI.—*Summary of the Trade with the Coloured Races of Africa, including Bullion and Specie.*

[Sums in this table given in round numbers.]

	Imports into Africa.	Exports from Africa.	Memoranda.
	£	£	
United Kingdom	1,373,000	1,957,000	Average of 3 years ended 1866
France..........................	767,000	1,053,000	„ 4 „ '64
Belgium	8,000	25,000	„ 3 „ '66
Spain	4,000	2,000	„ 4 „ '63
Portugal	300,000*	409,000	„ 2 „ '64
Holland	81,000	93,000	„ 3 „ '63
Germany..........................	76,000*	79,000	„ 3 „ '64
United States..........................	379,000	486,000	Year 1861.
Brazil	56,000	30,000	Average of 3 years ended 186
East Indies	156,000	227,000	„ 3 „ '65
Cape Good Hope and Natal	130,000*	180,000*	Estimate.
Egypt	50,000*	75,000	Ivory to United Kingdom and France, average of 6 years.
Barbary States	150,000*	71,000	Average of 2 years ended 1864
	3,530,000	4,687,000	
Miscellaneous (say)	100,000*	100,000*	
	3,630,000	4,787,000	

* Items which have been estimated.

XII.—*Note Omitted from the Text*, p. 28.

Already, as often as the educated native traders have had opportunities, they have shown great eagerness to carry small adventures up the Niger, and have even endeavoured to form among themselves a company, with a capital of 25,000*l.*, for steam navigation in that river.

ANALYSIS *of the* REPORT *upon the* STATE *of the* EMPIRE *of* FRANCE, *presented to the* SENATE *and* LEGISLATIVE BODY, *February*, 1867.

By COLONEL W. H. SYKES, M.P., F.R.S.

[EXPOSÉ *de la* SITUATION *de* L'EMPIRE, *presenté au* SÉNAT *et au* CORPS LÉGISLATIVE, *Février*, 1867.]

[Read before Section F, British Association, at Dundee, September, 1867.]

State of the Interior.—The report opens with an assurance that notwithstanding the effects of the American war, the manufacturing industries bore patiently and without much suffering the occasional suspension of labour.

In 1865 a law permitted the union of workmen for the consideration of their commercial and industrial interests, provided politics were rigidly excluded; and the results in 1866 showed that the emperor's liberal views had acted favourably.

Inundations.—There were inundations in twenty-six departments of France during 1866, and 3,777,918 frs. were distributed in aid of the sufferers.

Municipal Elections.—Since the general elections in 1865, at the termination of the quinquennial period, 4,351 vacancies have occurred by deaths or resignations, amongst the mayors and their deputies; and the Government in fulfilment of a pledge, had, as far as possible, filled them up from members of the municipal councils, only 123 were appointed from other sources, fourteen mayors being named by the emperor. Owing to certain regretable conflicts which took place in the last elections, it was necessary to dissolve twenty-five municipal councils.

Five vacancies in the legislative body occurred during the past year, and the electoral colleges of departments were convoked and filled up the vacancies, except the College of Vervins.

Public Safety.—In the cantonal police reductions are being made with a view to economy, and they will be continued as far as compatible with serious interests.

Printing and Libraries have remained nearly stationary, but it would appear that the number and cheapness of journals have interfered with the production of books; nevertheless in some departments new libraries have been opened; but the illustrated papers, lithographs, photographs, and designs have increased to an important extent, rising to thirty-five millions of impressions, and in the interests of public morality it has been necessary to look well after them.

Press.—The number of political journals on the 1st January, 1866, was 330, of which 63 were printed in Paris, and 267 in the departments. On the 1st January, 1867, the number was 336, of which number 64 were printed in Paris, and 272 in the departments. On the 1st January, 1866, the new political papers were 1,307, of which 703 were printed in Paris, and 604 in the departments. On the 1st January, 1867, the number was 1,435, *i.e.*, 710 for Paris and 725 for the departments. In 1866 the Government authorised the establishment of six political journals, one in Paris and five in the provinces.

In 1866 sixteen "warnings" were given, seven in Paris and nine in the provinces, ending in the suppression of one weekly paper. In the provinces no weekly paper had been suspended or suppressed. During the same period there had been thirty-two judicial condemnations. The colporteurs had presented 1,578 works to be allowed to circulate, of which 1,423 were sanctioned and 155 interdicted.

Population.—Notwithstanding epidemics, which prevailed very generally in France, the population has been gradually increasing during the quinquennial period; in 1866 the census gave 38,067,094 souls, exclusive of the troops of the army and navy abroad; in 1861 the number was 37,386,161 (rectified by the decree of 17th January, 1863), the increase therefore was 680,933. In fifty-eight departments there was an augmentation, and in thirty-one a diminution, more or less. The disposition in the rural population to become urban is not marked.

Benevolent Establishments. — These establishments are placed under the patronage of the empress by the decree of 8th August, 1865, and the Minister of the Interior has just published an account of the origin, organisation, receipts and disbursements of all these institutions. The hospital for the blind has granted this year 200 new pensions of 100 frs. each to blind at their houses. The total number of blind pensioners out of doors is 1,400, besides 300 in the hospital.

Asylums for Convalescents.—In 1866 in the establishment at Vesinet, 4,844 females have been received, and at the establishment at Vincennes, 10,489 workmen. The empress is also now opening a similar asylum for convalescent workmen at Lyons.

Deaf and Dumb.—The deaf and dumb institution at Paris has long been celebrated, and one of its objects is, by means of lectures, to extend a knowledge of the best means of instruction, and gentlemen, whether Frenchmen or foreigners, are invited to undertake the office. The imperial establishments at Bordeaux and Chambery are flourishing. Besides the imperial schools, there are fifty-one public and private deaf and dumb schools, with 2,000 pupils.

Blind.—At the institutions for the blind, the cultivation of music has been carried to a remarkable extent, and many have acquired such proficiency as to obtain a lucrative livelihood by it.

Dispensaries. — Dispensaries for the gratuitous dispensing of medicines and advice to the poor, exist in forty-three departments. The cost in 1866 was 1,156,975 frs., made up of Government, departmental, and communal subventions and private subscriptions; 766,037 poor were upon the lists, and 613,617 visits were paid to 224,928 poor persons at their homes.

Lunatics.—The establishments are numerous, and at Lyons a new asylum for 1,200 of the afflicted has been built outside the walls.

Mendicity.—Is legally interdicted in fifty-six departments, but in the department of the Haute Vienne, a poorhouse has been raised by private subscription by way of trial.

Hospices and Hospitals are very numerous.

Mutual Aid Societies.—In December, 1866, they amounted to 5,581, and the number of members was 700,000, with a capital of 39,830,673 frs. The honorary members exceeded 100,000. With a view to encourage the formation of these institutions, the emperor gave a subvention of 64,350 frs., to assist in discharging preliminary expenses; and further to encourage zeal,—two crosses of the legion of honour, 28 gold medals, 89 silver medals, and 31 "honourable "mentions" were distributed amongst mutual aid societies.

Prisons and Penitentiary Establishments.—At Melun, Clairvaux, and Clermont prisons, called "maisons centrales," are established for criminals who have committed a first offence, and the youthful are separated from others; but it has been necessary to engage the young in agricultural labours, and about 16,000 are so occupied in different places. The places in which they are confined are called maisons centrales; but some of them have been discontinued on account of the disproportionate expense, and at the end of 1866 the number of criminals employed in agriculture had fallen to 15,300. In Corsica the houses of detentionwere capable of containing 19,335, but the actual number of occupants did not reach 4,000. In ten of these penitentiaries libraries have been established.

Culprit Children.—Arrangements are made for the detention and care of culprit children, and when it is thought right to liberate them they are placed with those farmers who will take them.

Provision is made for the solitary confinement in cells of about 17,800 individuals.

Telegraphic System.—The telegraphic system throughout the country is looked to with great solicitude, particularly its introduction into the cantons, in which above two hundred new stations have been opened in the last year, and the people eagerly take advantage of them. Hughes's system is adopted. On the 1st December, 1866, the total number of telegraphic offices was 2,091. In such offices as are not pressed by correspondence an officer of the State is dispensed with, and old soldiers, &c., their wives, widows, and children are placed, and in 1866 there were 128 offices in which such individuals were employed. In ten months of 1865 2,061,457 messages were sent, 1,748,871 in the interior, producing 3,458,704 frs. 15 cents, and 312,586 international, producing 2,410,578 frs. 60 cents; but for the corresponding period of 1866, the number of messages rose to 2,367,991; for the interior 1,972,571, producing 4,534,144 frs. 38 cents, and international 395,400, producing 1,937,742 frs. 26 cents, so that the increase in interior messages had been 12·78 per cent., and in the international 26·82 per cent.

Departmental Administration.—Previous to 18th July, 1866, the exercise of the central power in matters which were purely local occasioned great dissatisfaction, and it was deemed politic to moderate the use of this power, whence the law of the 18th July, which gave extended powers to the conseils-general, reserving to the Government, however, a power of veto in certain cases, and this veto was only exercised in three cases in 1866. Departmental roads, village communications (service vicinal), the lunatic poor, vagrant children, prisons, public works, to levy taxes and borrow money, are part of the functions of the conseils-general. The relaxation of the central power has gone to that extent, and very shortly a communal law will put the seal to the work of "decen-" "tralization."

Departmental Records.—Seven volumes of catalogues of departmental records have been added in 1866, comprising an account of documents of the years 768, 819, 980, 1064, &c., &c., emanating from the kings Pepin-le-Bref, Charlemagne, Louis-le-Debonnaire, emperors, popes, &c.

Communal Administrations.—In 1865 the sum of 30,134,500 frs. was borrowed for communal purposes; but in 1866 the loans were reduced to 22,825,039 frs. The half of these loans was for a sinking fund, by which they would be extinguished in limited periods, and to pay interest, and the other half was devoted to building churches, lyceums, schools, markets, abattoirs, &c. Altogether there were thirty-four loans extant.

Roads.—Great attention is paid to country roads on account of agriculture, and to road communication generally. The funds available for roads generally in France, in 1865, amounted to 121,763,410 frs. 77 cents. The distribution of this sum is given in detail in the report. On the 1st January, 1866, the number of great roads of communication were 3,900; of high or postal roads 6,896; and of country roads (chemins vicinaux) 203,583.

We next come to the report to the emperor of the financial condition of 1865, carried through 1866 to the rectification of the budget for 1867. The estimates for 1865 were thrown into confusion owing to the failure of the contributions from Mexico to the extent of eight millions of francs.

In 1866 the grave affairs in Germany threatening France being involved in war, occasioned great disquietudes; and though the rapid termination of the war in Germany prevented great expense, yet there was an increase of disbursements, happily met by an increase of revenue. Ten millions were allotted to the army, and the expenses of the army in wages exceeded by six millions the estimate; and the accounts of the Finance Minister showed an excess of 8,800,000 frs., chiefly for Mexican objects. The Minister of the Interior required 300,000 frs. to relieve the distressed workpeople of Lyons. The amount due from the Mexican Government of 7,500,000 frs. has not been paid. The money for the sale of pine woods in the sand-hill districts for two millions, and the sale of lands at Havre valued at 3,800,000, has been only partially realised, and there has been a short-coming to the extent of two millions in other branches of revenue; but, thanks to commercial development, there has been an increase of above 30 millions in the first eleven months of 1866, and the increase, as compared with 1865, will not be less than 45 millions. The receipts and disbursements, therefore, of 1866 would be in equilibrium. The freedom from commercial panic, the reasonable rate for money, and the active continuance of public works to the extent of 12 millions, have enabled public credit to be maintained with firmness.

The floating debt, however, which had been 792 millions in 1865, rose in 1866 to 888 millions; but the balance in the treasury had risen from 97 millions in 1865, to 215 millions in 1866.

Bank of France.—The inquiry into the affairs of the Bank of France resulted brilliantly, and satisfied the public that the monetary affairs of France were on a solid footing and offered every security, and that the monetary system of circulation was quite satisfactory.

Rectifications of the Budget of 1867.—The indirect receipts increased, in 1866, to the extent of 45 millions even under some unfavourable circumstances, and it is fair to calculate that the increase in 1867 will be 90 millions. The direct taxes will produce about 24 millions. The increase in the military department will be about 47 millions, and in the navy, chiefly by the increased price of provisions, giving new rifles to the troops and new cannon to the navy, 22 millions will be required; for the Minister of Agriculture, 12 millions,—for the damage by the inundations, 8½ millions to augment the grant for public works, and 1½ millions for the Palace of the Universal Exposition. Other grants are made, for public instruction one million; the household of the emperor one million; and other grants; leaving a balance of increased revenue of 1½ millions, which are apportioned to various departments. Thus, the budget of 1867, in regard to receipts and disbursements, will be placed in equilibrium, and there will not be any necessity for new taxes or having recourse to borrowing.

Estimate for 1868.—The expenditure for 1868 is estimated at 1,548,665,223 frs. (61,946,601*l.*) Debt, public, and grants, 512,974,963; ministerial departments 790,505,636; collecting taxes and revenues 232,843,124; re-embursements, &c., &c., 12,341,400. The expenditure of 1867 is put at 1,523 millions; an increase, therefore, of 25 millions, of which nine millions is an increase of interest upon the floating debt. The rest is for departmental organisation, Algeria, for native troops, &c., &c.

The receipts are estimated at 1,669 millions (66,000,000*l.*), an excess of 52 millions over 1867.

Sinking Fund.—The sinking fund would remain as for 1866. No alterations are contemplated, nor extraordinary felling of timber.

Extraordinary Budget.—The deficit for extraordinaries, 121 millions, is to be met by one million of indemnity from Cochin China, 2½ millions extra produce of forests, 1½ million from re-coinage, 16,666,000 the third annuity from the Algerian society, and the total receipts will be 143 millions. The favourable state of the finances in 1868, M. Achilles Fould hopes, will enable the emperor to carry out his wishes for a diminution in taxation, augmentation for public instruction, and for works of public utility.

Administrative Organisation. The Public Debt.—The efforts made in 1862 for the more equable diffusion of the debt by increasing the number of fund holders in the departments, has been successful to the extent of 9½ per cent., and there are 44,000 persons holding six millions of dividends, now exclusively in the departments.

Public Servants.—The cost of salaries of public servants remains about the same as in 1865, in which year, however, the total exceeded that of former years.

Direct Taxes.—The direct taxes for 1866 exceeded those of 1865 by 7,258,000 frs. The details of this increase are given in the report.

Registration of Lands and Stamps.—Under these heads a satisfactory increase has taken place.

Forests.—The felling of timber has had favourable results this year from 17 crown forests and 148 others, comprising 61,765 hectares. 16 of the crown forests have been disforested.

Great care has been taken in replanting and in re-turfing (regazonnés) the hill sides, and 50,000 hectares planted in 1864, rose to 61,000 hectares at the end of 1865.

Great efforts have been made to fix the sand hills (dunes) of the coast, and 54 kilometres of pallisades have been raised against the influx of sand. 88 kilometres of new forest roads have been constructed, and 133 kilometres improved.

Customs and Indirect Taxes.—Owing to the revised tariff, the development of the customs is very satisfactory, exceeding by four or five millions the estimate, and the total receipts exceeds 205 millions. The receipts from sugar exceed by eight or nine millions any former figure under the empire. Coffee, machinery, and mines have been constantly increasing since 1859. The tax on salt, wood, boats, public carriages, cards, &c., have increased about eight millions over former budgets; in fact the augmentation of indirect taxes is 15 to 16 millions above the receipts in 1865.

Government Manufactures.—The control of the manufacture of powder for commerce has been joined to that of tobacco, and the results are not yet known. The purchase of tobacco is increasing, and the cultivation of indigenous tobacco is extending itself. The consumption has produced five millions more than in 1865.

Post (Land).—The progressive increase in letters in 1866 produced an augmentation of 3,240,000 frs.; 100 new post offices have been established, and the daily delivery has been improved in 772 rural communes by a second delivery. In Paris a great extension has taken place.

Post (Sea).—Steamboats go twice a-month to the United States, and new lines have been established between France and Venezuela, Havana, Goree, Brazil, and Senegal. Arrangements have been made with Portugal, the States of the Pope, Greece, England, Belgium, Australia, India, &c., to facilitate intercommunication, and the telegraph has been connected with the post office.

Mint.—The gold coinage in 1866 amounted to 338 millions. The coinage in silver of $\frac{900}{1000}$ purity, has been restrained, but that of $\frac{835}{1000}$ amounts to 34,248,000 frs., and is intended to amount to 239 millions, which will be amply sufficient for all money changing.

Agriculture.—Under the head of agriculture the report is very lengthened and minute; quantities, process, extent of cultivation, importation, &c. Exportation of cattle had risen from 130,002 to 180,656; butter from 17,850,238 kilogrammes in 1865, to 22,687,318 kilogrammes in 1866; eggs 28,321,892 kilogrammes, to 32,119,582 kilogrammes; wines 2,585,810 hectolitres, to 3,038,713 in 1866. Thirty-one departments suffered from inundations; the public came forward liberally, and the subscriptions, added to by Government, were distributed in the ratio of damage.

Cattle Disease.—While Great Britain, Holland, and Belgium were suffering from the cattle disease, Italy and Spain, touching France, were entirely exempt, and, thanks to the precautions taken in France, there were only one or two trifling inroads, which in fact left the agricultural districts free—and they remain so.

Veterinary Schools.—Great attention is paid to veterinary schools.

Industry.—The industry of the country had been but slightly affected by the state of political affairs. In cotton manufactures 96,475,070 kilogrammes had been imported in the first ten months of 1866 as compared with the first ten months of 1865 of 48,978,306 kilogrammes; and woollen manufactures were satisfactory, notwithstanding the mild winter of 1865-66.

Flax.—Two crops of flax had been short.

Machinery sent to Newcastle.—The manufacture of metals had been active. In machinery the phenomenon had appeared of the export of machinery to Newcastle.

General Results.

1866.		1865.	
Imports (10 months)	2,486,000,000	Imports..........................	2,184,000,000
Exports „	2,822,000,000	Exports..........................	2,483,000,000

Excess in 1866 over 1865.................... 641,000,000.

Entries—	Tonnage.	*Exits*—	Tonnage.
1865	4,200,000	1865 (French 1,354,000)....	2,943,000
'66 (French 1,720,000)....	4,614,000	'66 („ 1,693,000)....	3,512,000
Increase 414,000 tons, of which 25,000 tons French.		Increase 569,000 tons, French 339,000.	

Free Trade.—A review of commerce since the introduction of free trade, in 1860, shows that the measure has been good and useful. From England the importations have risen in ten months of 1865 from 413,570,000 frs., to 501,570,000 frs. in 1866.

Silk Manufactures have greatly improved in 1866.

Exports to England.—In 1865 the value was 680,428,000 frs., in 1866 it was 889,915,000. 105,586 cattle were sent in 1865, and 158,678 in 1866. Wines had increased 10 millions, and brandy 20 millions. Grain had exceeded 60 millions. There were 28,069,000 eggs exported in 1865, and 30,060,000 in 1866. Silks 38,000,000 frs. woollens 15,000,000, and merinos 13,000,000, *plus* the value in 1866.

Exports to other Countries.—Then follow the exports and imports to other countries. The ameliorations in the laws to facilitate commercial intercourse, to prevent the introduction of contagious diseases, &c., are given in great detail, and the Government published a new edition of the "Codex Medicamenteux Pharmacopée "Française," the two former editions having been published in 1816 and 1837. This matter in England would have been a private speculation.

The classification of manufactures has eliminated one hundred names, and lowered to an inferior class above eighty.

Weights and Measures.—The law of the 4th July, 1837, established the metric-decimal system of weights and measures, and in 1839 standards of verification were provided for every superintending office, which standards are to be verified every tenth year.

Co-operative Bodies.—At the suggestion of the emperor, a society (anonyme) has been organised to give moral and pecuniary support to co-operative labour associations. To the society of (fisseurs) silk weavers of Lyons, the emperor has aided its foundation with 300,000 frs.

Conservatoire des Artes.—Great aid is given to the Conservatoire des Artes et Metiers and the Imperial School of Arts, by adding to the buildings and augmenting the collections. In short, the emperor is shown as making himself popular with the working classes.

Imperial Roads and Bridges.—Large grants have been made to complete imperial roads, and to build, restore, and repair bridges connected with them.

Internal Navigation.—The internal navigation by rivers is 9,600 kilometres, and by canals 5,050; but deducting the rivers and canals with the navigations occasionally interrupted, the permanent navigation extends by rivers 6,900 kilometres, and by canals 4,856, total 11,740. The several rivers and canals are named in the report.

Mouths of the Rhone.—To enter the Rhone it has been necessary to canalize one of its mouths for 3,600 metres. Ten millions of francs had been allotted for internal navigation. Detailed accounts are given of the improvement of the ports.

Irrigation.—Irrigation from canals has made great progress in 1866.

Railways.—The development of railways up to the 31st December, 1865, was 21,033 kilometres of concessions, including 613 kilometres granted upon an eventual title. Matters remain much the same, as two concessions only have been granted in 1866, one of 3 kilometres and one of 14 kilometres. The length open on the 31st December, 1865, was 13,562 kilometres, and in 1866 there were added 944 kilometres; remaining to complete 6,544 kilometres.

Cost.—The expenditure to 31st Dec., 1866, was 6,173,195,000 frs., and to be expended to 1st January, 1867, 1,806,805,000. Total 7,980,000,000 frs. (319,200,000*l.*).

Cost per Kilometre.—The average cost was 379,097 frs. per kilometre (15,164*l.*). The aid given by the Government consisted either in loans to be repaid, or by work executed by the Government, and in subventions, of which one class is payable in capital, and the other has been converted into a number of annuities equal to the number of years to run to the end of each concession.

Government Advances.—The sums expended by the State up to 31st December, 1866, after deducting repayments, amounted to 978,573,377 frs. The subventions embrace one to the Italian Government.

The subventions payable in annuities amount to a capital of 396,169,863 frs., for which the interest of 4½ per cent. and sinking fund amount annually to 18,272,500 frs.

The subventions to the companies represent a capital of 144,483,126 frs., representing 68,638 frs. per kilometre, which will make the cost per kilometre 447,735 frs.

Guarantees.—Independently of the subventions, the companies of the north, the east, of Orleans, of the west, of Lyons, of the Mediterranean, and of the centre, are guaranteed an interest of 4 per cent., with a sinking fund of the same amount. The company of Victor Emmanuel has 4½ per cent.

Amount Guaranteed.—The guaranteed interest in 1866 will not exceed 31 millions frs.

Local Lines.—216 kilometres of local lines have small subventions; the lines originate in the departmental conseils-general.

Communication. Passengers and Guard.—An electric system was invented and practised for communication between passengers and guard, but it failed from the vibration of the train. An acoustic system promises better.

Abatement of Smoke.—Engines are compelled by law to burn their smoke.

Number of Travellers.—Over 13,228 kilometres 84,025,516 persons have been carried 40 kilometres, and 3,361,000,000 have passed over 1 kilometre. 34,019,436 tons of merchandise have been carried by the slow trains.

Receipts. — The gross receipts for travellers have been 184,215,213 frs.; goods by the trains 314,609,184 frs.; miscellaneous receipts 80,032,474 frs. Total 578,865,871 frs.

Subscription Tickets.—Some of the railways allow workmen weekly tickets at reduced prices. The Company du Midi (central) allows the workmen to send their children to school by monthly tickets.

Time.—Slow trains were only obliged to travel 125 kilometres in the twenty-four hours; they are now obliged to travel 200 kilometres.

Inundations.—In September, 1866, parts of France were desolated by serious inundations, which equalled in extent those of 1865.

Twelve millions of francs were required to repair the damage, and various provisions were made to protect the country for the future.

Mineral Industry.—In 1865 the coal measures supplied coal to the extent of 110 millions of metrical quintals, and in 1866 there were 120 millions of quintals, and from 1857 to 1866 the production has risen from 79 millions to 120 millions of quintals; and the price, which in 1857 was 1 fr. 26 cents per quintal, is to-day above that rate.

Iron.—In 1866, iron, whether for rolling or casting, to the extent of 2,130,000 quintals, by wood fusion, were produced, to the value of 32,065,000 frs., and 899,000 quintals by coke or charcoal, to the extent of 91,889,000 frs.; the total value of iron produce 135,316,000 frs.

Mines.—Concessions have been granted in 1866, four for combustibles in the Higher Alps, and Lot and Var; four for iron mines in the departments of the Moselle, Meurthe, du Nord, and the Saone and Loire; also two concessions for lead mines, silver, copper, and other metals in the High Alps and Savoy.

One concession for a bituminous mine in the "Ain;" one of manganese in the Haute Garonne; one of antimony in the Haute Loire. In all thirteen concessions have been granted, for a superficial area of 6,208 hectares.

Total Concessions.—The previous concessions amounted to 1,184, viz.:—

Coal	598
Iron	249
Other minerals	337

And in January, 1867, there were 195 applications for further concessions.

Fine Arts.—The French Government systematically encourage the fine arts, and numerous proofs are given of acquisitions for the different museums—paintings, sculpture, &c., either ordered by the Government or acquired by purchase.

Historical Monuments.—Great care is taken in the restoration and preservation of historical monuments, such as feudal castles, churches, tombs, &c., &c.

Civil Buildings.—All the public buildings, the ministries, palaces, libraries, &c., are enumerated in the report, and the extensions or repairs done to each are stated: Sevrès china manufactory, conservatory of arts, a new opera house, which will be finished with 1867.

Archives.—The records are well preserved.

Fossils.—A museum of ancient fossils has been opened.

Correspondence of Napoleon I.—The commission appointed to superintend the publication of the correspondence of Napoleon I, has put to press the twentieth volume.

Theatres.—Many additional theatres have been built in Paris and the country; some of them owe their success to writings, not only frivolous, but to questionable tastes. The Government opposes itself as much as possible to these unsatisfactory manifestations. Owing to a subvention of 100,000 frs., the Italian theatre has emerged from its difficulties.

Studs.—783 stallions of pure and half-blood were bought in 1865 at a cost of 476,400 frs., and in 1866 the number was 827, at a cost of 486,950 frs., adding 62, and 889 stallions were otherwise available for breeding; allowing 25 foals to each, there is an annual product of 50,000 thorough and half-bred horses.

Racecourses.—Racing has now entered into the manners and amusements of the French. In 1860 there were 63 hippodromes, with a budget of 862,700 frs., and in 1866 there were 117, with a budget of 1,961,760 frs. Of this—

		frs.
	For plates	1,332,725
	„ steeplechases, &c.	411,800
	„ trotting matches	217,235
Of this—		
	The State contributed	510,900
	„ emperor and empress	112,800
	Societies	1,338,360

Civil Justice.—Lengthened statements are given in the report of the action of the several courts. There were very considerable arrears, but they were slightly lessened latterly.

Criminal Justice.—The general results are satisfactory as to a normal condition, and the statistics of crime for 1866 are about being published.

Extradition Treaty. — The extradition treaty with England amounted to a nullity until the English Parliament passed a bill relaxing the law with respect to documentary proofs against criminals. This bill has produced excellent results, and criminals can now be made amenable to the laws they have outraged.

Revision of the Criminal Process.—The Council of State has finished its labours in the preparation of a law for the revision of the existing criminal process.

Imperial Printing Department.—The printing is proceeding successfully, and its labours are increasing from year to year. It possesses all the "types" known in printing; it has invented a type which will be acceptable to lovers of books for its beauty, and to the poor for its cheapness.

Worship.—Arrangements have been made with the Pope for the reorganisation of public worship in Algiers, under the control of the Metropolitan of Algeria and the Bishops of Constantine and Oran.

Restorations.—Restorations have taken place in the cathedrals of Albi, Autun, Montpellier, Perigueux, and Rouen, and there has been partial reconstruction of the cathedrals of Cambrai, Clermont, Moulins, and Troyes.

New Cathedrals.—New cathedrals have been constructed at Gap and Marseilles, and the seminaries of Autun, Nantes, Rennes, Tarbes, and Tulle have been reconstructed.

Communes.—By legislative grants also a great number of communes have been aided in the reconstruction or repair of their churches and presbyteries.

Protestants and Jews.—Protestants and Jews have had their share in the grants.

Public Instruction.—In 1864 there were 36,692 communes provided with schools, but 818 communes had not complied with the conditions imposed upon them by law.

On the 1st January, 1866, there were 36,854 communes provided with schools, and 694 were without. Since 1864, therefore, 124 communes had provided themselves with schools.

Schools.—In 1864 the schools for boys, or for both sexes, were 38,386, and for girls 14,059.

On 1st January, 1866, there were 38,629 public schools for boys or mixed, and 14,721 for girls. The augmentation, therefore, being 905 schools.

Number of Scholars.—On the 1st January, 1864, there were 2,399,093 boys and girls in the public schools, and 1,004,837 girls, making a total of 3,413,830 scholars.

Public Schools.—On the 1st January, 1866, there were 2,424,454 boys and girls, and 1,053,888 girls, in all 3,478,342 scholars; the increase, therefore, in the public schools being 64,572 scholars of both sexes.

Private Schools.—Of private schools there were on the 1st January, 1864, boys' schools 3,108, and girls' schools 13,208, instructing in all 922,538 scholars.

The total of public and private schools being 68,761, and 4,336,868 scholars. On 1st January, 1866, the private schools were, boys' 3,289, girls' 13,057, scholars 964,079, making a total of 69,696 public and private schools, with 4,442,421 scholars, showing an augmentation of 935 schools and 106,053 scholars in two years.

The public asylums for infants, 1st January, 1864, were 2,335, and 973 private, receiving 383,856 infants of both sexes. On 1st January, 1866, the infants' schools were 2,484 public and 1,088 private, receiving 418,768 infants. The total number of establishments on 1st January, 1866, was 73,268, with 4,861,189 scholars.

Attendance.—In 1863 the attendance was 47·2 per cent.; in 1866 the attendance was 49·8 per cent.

Aid Given.—In 1865 780 communes asked for aid to establish schools, and obtained aid to the extent of 1,980,787 frs. In 1866 810 communes asked for aid, and obtained 2,155,985 frs. For infant asylums, 85 communes got aid, 144,200 frs., and in 1866 112 communes got aid, 112,954 frs. The law of September, 1863, authorised the grant of 300 frs. to a commune for school furniture, provided the commune raised a similar sum.

Pensions.—Pensions to schoolmasters have been raised from 44 frs. to 95 frs., and in 1866 to 103 frs. per annum; but it was necessary to increase these miserable pensions by a grant in 1866 of 40,000 frs. The total amount of 273,453 frs. was distributed amongst 4,311 retired schoolmasters, the mean aid being 63 frs. The formation of aid societies has been encouraged, and many shareholders give their dividend to the schoolmasters' fund.

Codes of Instruction.—Departments have to distribute to schoolmasters an approved code of instruction. The object is to develop a child's mind and not to load it with abstract formularies which imprison the intellect within obscure rules, which do not realise the object in view. But children's schools have not been the sole object of the care of the Government. It has favoured adult instruction in reading, writing, and arithmetic.

Adult Instruction.—In the preceding report of 1866, there were 20,000 schools; for the present report it can only be determined approximately, but the number far exceeds 20,000. 22,980 for adult men, and 1,706 for adult women, existed in 22,947 communes, and there were 30,222 instructors; 552,939 men, and 42,567 women attended instruction. 15,276 of these schools had gratuitous instruction; in the others a slight fee was paid, barely enough to cover fire and light; 4,150 of the instructors supplied the cost of fire and light, and many gave books to the adults. 1,551,225 frs. were the cost of these schools during 1866, which was obtained as follows:—

	frs.
Pupils	414,940
Communes	656,164
Conseils-general	72,667
Private donations	125,760
Teachers	90,999
By the Government	190,695
Total	1,551,225

The numbers are then given in the report of those who learnt reading, writing, and arithmetic, but many went beyond this. 22,340 learnt drawing; 56,059 went through a course of geometry and carpentering; 8,386 a course of physical science; 33,282 a course of applied arithmetic; and 13,950 singing. The moment the harvest is over, the adults flock to these schools. So far from these schools being unpopular, no less than 3,794 additional have been opened in 1,502 communes. Prizes are given of medals and books.

Limit Hours. — At the recommendation of several conseils-general, teachers of public schools have been authorised to curtail the day's instruction by one hour, that they might *at night* instruct the adults. Much to the honour of the teachers, few have availed themselves of this privilege, but have continued to give the full four hours' daily instruction, and attend the night schools also.

Schoolmasters free from Conscription.—Schoolmasters permanently attached to the public schools are free from the conscription, but not the masters of free schools.

Normal Primary Schools. Age to Enter.—No pupil could enter before he was 18, but the effect was that the schools were almost without pupils, and the age was reduced to 16 years, which was successful.

Secondary Instruction embraces geometry, knowledge of books, ornamental drawing, and even living languages. Those who offer themselves for examination and obtain a certificate are examined twice a-year by voluntary examiners.

Inspection.—The inspection of the public primary schools was on a defective footing; it was directed by the law of 1850 that there should be an inspector for each arrondissement, but it was neglected, and eighty arrondissements were without an inspector at all, and it was impossible the other inspectors could visit, even once a-year, all the schools. To mitigate this, the inspectors-general of normal primary schools have extended their inspection as far as possible, and there has been a special inspection in regard to music.

Children in Factories.—There are not any Government inspectors of factories, but the conseils-general in many departments have organised a system of inspection. It does not seem that there is any half-time system for instruction.

Agricultural Instruction.—In all the normal primary schools agricultural knowledge is taught.

School Libraries.—In 1865 there were in all France only 4,833 school libraries. On the 1st January, 1866, the number was 7,789, an increase in one year of 2,956. The 7,789 libraries possessed 473,779 volumes. 77,870 volumes were distributed to 1,447 communes, which could not satisfy the demand. In 1865 there were lent to families 179,267 volumes; and in 1865-66 there were lent 450,962.

Secondary Instruction.—The imperial lycées and colleges furnish secondary instruction; and these were increased in 1864-65 by 1,179, and in 1866 by 1,812.

The desire for the degree of bachelor had got enfeebled, and students left without taking it; but the feeling has revived.

Lycées and Colleges.—The two great classes in the lycées are rhetoric and philosophy. The students in the lycées, which were 20,361 in 1853 are now 34,442.

Communal Colleges.—The progress in the communal colleges is not so satisfactory as in the lycées, there being only an increase of 225 students in the last year. The students in the lycées and colleges number 67,705, of which number 17,164 belong to special instruction.

The School of Cluny, &c.—The school of Cluny is provided with laboratories for chemistry, physics, natural history, and a large library. It has 100 students, 62 of whom are prizemen from the departments, and 20 are Government prizemen. It is of high distinction for a professional education. At Mont de Marsen, by order of the emperor, a lycée for special instruction has been reorganised. As a classical school it languished, and could scarcely get students; but on the footing of Cluny, room has not been found for the students, and there are now 237. The system of special instruction is fully organised. Gymnastics are generally encouraged, and to enable them to be carried on profitably the time for instruction for the classes is diminished.

Statistics of Progress.—In closing the report upon secondary instruction, it is stated that the statistics of progress since 1843 will speedily be published.

Superior Instruction. The College Imperial of France.—The number of chairs has remained unaltered, but a supplemental course on the history of political economy has been added.

The Museum.—The inspector reports upon the deplorable insufficiency of the resources of the museum, and it will lose its high character. In 1865 the museum acquired by exchanges or acquisitions 31,105 scientific objects and 3,259 living plants. During that time, notwithstanding loans to illustrate lectures, the museum has distributed to public establishments 5,104 scientific objects, and 89,999 living plants. It is, therefore, not activity that is wanting, but resources to arrange the collections and make purchases. An aërolite was presented to the museum by Marshal Bazaen, of such dimensions that it was equivalent to a gift of 15,000 frs.

Imperial School of Oriental Languages.—The object of this school is to qualify for diplomacy and commercial intercourse. To other Oriental languages Japanese and Thibetan have been added, and an elementary course of Mongol, Annaniteese, and Cochin Chinese, and students are invited generally to an application to the Semetic languages.

Imperial School of Charts.—The school is progressing satisfactorily.

French School of Athens, for the study of ancient and modern Greek, and several valuable publications have emanated from it in the past year.

Faculties and Schools for Superior Teaching.—The reputation of these schools is very high; nevertheless, in some of them the means of illustration are limited in the want of complete laboratories and instruments; an addition, however, has been made of 160 students in 1866. In 1864 the diplomas granted were 8,608, and in 1865 they rose to 9,734, an increase of 1,126. The number for 1866 is not yet known.

Free Lectures.—The courses of free lectures were 876 in 1864, and in 1865 they rose to 1,003, of which 302 were placed under the auspices of the municipalities, chambers of commerce, and learned or industrial societies. The subjects treated were sciences and applied sciences, 203; literature, 394; history, 103; political economy, 18; rights, 69; archæology, 15; fine arts, 48; hygiène, 40; agriculture, 24; geography, 36; Greek philosophy, 33. Total 1,003.

Science and Letters.—The publications of the Institute, which are always looked forward to with anxiety, appeared as usual. The second part of the historical dictionary of the national language has great interest.

Academy of Inscriptions.—The second part of its twenty-fifth volume has appeared, also the second part of the eighteenth volume of extracts of MSS.

The Academy of Science has published the sixty-second and sixty-third volumes of the weekly "Comptes rendu."

Academy of Fine Arts, from want of funds has not published.

Public Libraries.—A new reading room has been opened in the imperial library.

Pali Manuscripts.—A large collection of Pali manuscripts, obtained in 1866, from Ceylon and Burmah, relates to the Buddhist religion and literature. Numerous valuable gifts have been made to the library, and the catalogue is pushed on with all activity. The tenth volume of the catalogue of books relating to the history of France, and the second volume relating to works on medical science, are ready for printing. The letters patent of the Kings of France have been classified. The medals also of the collection of the Duke de Guynes have also been catalogued.

Learned Societies.—The labours of learned societies are reported to a committee instituted by the Minister of Public Instruction, and comptes rendu, in two volumes, of these reports have been published. The Minister of Public Instruction also encourages the exchange of publications between these societies, and in 1866 no less than 7,000 exchanges took place through the Minister of Public Instruction. Subventions have been granted to 120 learned societies.

Topography of the Gauls by the Commission.—A topographical chart of the Gauls in the eighth century has been printed, together with a dictionary.

Scientific and Literary Missions.—The exploration of Persia, Herat, and Affghanistan, commenced in 1866 by that courageous traveller M. Lejean, has continued through 1866, with valuable results relating to antiquities, ethnology, language, and geography.

Collections—Curious collections in zoology and botany have been made by a learned "Lazarist" in Tartary, to whom the work was confided. M. R. P. David is now visiting the regions of China where no European has hitherto penetrated.

Excavations.—In the island of Samothrace have produced valuable relics of antiquity and inscriptions.

Volcanic Eruptions.—In 1865 M. Fougué was deputed to observe the phenomena of the eruption of Etna and in the isle of Santorin.

Travellers.—Travellers were also sent through Europe, particularly England, and in Germany and Spain and Italy, to look for documents chiefly relating to French history.

Ptolemy.—The Greek MSS. of Ptolemy in different libraries have been collected and compared, with a view to a new edition.

Mexico.—A scientific mission in Mexico, commenced in 1864, was continued to the end of 1866, amidst great difficulties.

The Imperial Observatory.—The volume of astronomical observations for 1865 has been published. Observations on the swarm (essaim) of small planets have been made in conjunction with Greenwich.

Meteorology.—The study of meteorology on a vast scale is pursued with success. The service of meteorological notices or warnings (avertissements meteorologiques) given to the seaports, as commended by the councils of experience, are given regularly morning and evening.

Terrestrial Magnetism.—Observations on terrestrial magnetism are continued at Paris.

Climate of France.—Observations for determining the climate of France in the present time are zealously carried on in the normal schools. The report of the previous seven years' observations have been distributed to the conseils-general.

Progress of Storms.—The departmental meteorological commissions established by the prefects, have furnished data for studying the progress of storms in France. The lists of the storms of 1865 in France has been printed. Holland, Belgium, and Luxemburgh are in union with France in this work.

Maps of Atmospheric Movements.—183 maps of the great movements of the atmosphere, from New Holland and the Antilles to Europe and the frontiers of Asia, have been published. Data have been furnished liberally by the observatories of Europe, by the imperial marine of France, by the merchant marine, and by the marines of England, Holland, and Russia.

Great Telescope.—The observatory is grinding crown and flint object-glasses which have long been in its possession, with a view to the construction of a telescope of exceptional dimensions. The observatory was founded in 1667, and has, therefore, completed its two hundredth year.

Board of Longitude.—The board publishes its transactions as usual. In 1866 it prepared a plan for determining with great exactitude certain points on the globe by astronomical observations, which points fixed would enable other points to be fixed. The Admiralty has engaged to detach some officers for this object, and hydrographical engineers will co-operate, and it is expected the project will be speedily put into execution.

War Department. Mexico.—The operations of the French expedition commenced in 1865, and concentration took place to bring the troops home in 1866.

Algeria.—Complete tranquillity was established in Algeria since 1864, with some trifling exceptions on the borders by the tribe of Onled, Sidi Sheik.

Rome.—The convention with Rome of 1864, commenced its operation by the return of a division to France in November, 1865, and the complete evacuation of the pontifical territories took place on the 12th December, 1866.

Reorganisation and Recruitment.—After being an attentive spectator of the events of 1866 in Germany, the emperor saw that it was necessary to reorganise the national forces on a base sufficiently broad to meet all eventualities, and to maintain the legitimate influence of France.

Plan of Reorganisation.—A commission of the cabinet and of distinguished military men, under the presidency of the emperor, arranged a plan, which was submitted to the Council of State, and which was to be discussed by the legislative body.

Reduction of the Cadres of the Army.—The Order of the 15th November, 1865, for the reduction of the cadres, with a view to diminish expense, was carried out in the first month of 1866, which reduction has left without employ 1,193 officers of all ranks; 75 of those whose services did not entitle them to pensions, have been provided for in the financial or other departments, and others have been placed as supernumeraries with regiments, to succeed as vacancies occur.

Fire Brigade of Paris.—Owing to the extension of the city of

Paris, the old fire brigade of six companies has been found insufficient, and it has been reorganised into two battalions of six companies each.

Fourth Battalion of Algerian Sharpshooters Raised.—The emperor, after his visit to Algeria, ordered a fourth battalion of tirailleurs to be raised, and the regiment now consists of 3,000 men.

Conscription for 1866.—The contingent from the 20th to 25th August, 1866, produced 27,210 appearances, of which 3,857 were allotted to the maritime force. Of the 100,000 men of the contingent 1865, no less than 22,765 were exonerated, being an increase of exonerations over 1864 of 4,013, and this is attributed to the fact that the smart money, which in 1865 was 2,300 frs., in 1866 was reduced to 2,100 frs.

Transfers to the Reserve.—Men whose service was about to expire on the 31st October, 1866, were permitted to return to their homes, retaining their names as "reserve," and this diminished the effective strength by about 11,000 men.

Recruits.—The recruits of 1863 who had completed their exercises in 1864, were, on the 5th January and 5th March, 1866, transferred to the depôts of instruction. Recruits of the second class of 1866, have been called together to go through the first three months of their exercise, from the 1st October to the 31st December, 1866.

Reports of Generals of Division.—The reports of the generals of division with respect to the attendance of the soldiers of the reserve for drill have been satisfactory.

Effectives of the Army and the Reserve.

	Men.
Interior	298,680
Algeria	62,462
Italy	7,505
Mexico	26,838
Total	395,485

The mean of the preceding six months was 390,771 men. The effective of the reserve on the 12th November, 1866, was 255,614.

Military Schools. — Having given an account of the military schools in the comparison between the organisation and strength of the English and French armies, which is printed in the *Journal of the Statistical Society of London*,* I will limit myself to naming them on this occasion.

Polytechnic.—The Polytechnic, remodelled on the 30th November, 1863, continues to work successfully. Those pupils or students who do not attain the prescribed standard, seek employment in other paths in life.

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* Vol. xxvii, pp. 1 *et seq.*

Saint Cyr.—Saint Cyr sends annually many highly-educated officers into the army, and regimental officers, after two years' service, are promoted to go to the cavalry depôt at Saumur to complete an equitation course.

Imperial Prytanée.—This school is for the education of the sons of officers without fortune, and annually sends students to the Polytechnic, Saint Cyr, or to the naval school.

Education in the Army.—Notwithstanding the regimental schools, many men complete their time of service without having learnt to read or write. To remedy this defect, instead of one school for a regiment of three or more battalions, a school for each battalion is ordered, and even for detachments, and it is made imperative upon the non-commissioned to go through certain prescribed courses of instruction, four in number, proceeding from one to the other according to the capacity of the individual.

Books are provided, and every branch has a reading-room, provided with globes, maps, charts, and useful books, independently of the schoolroom. Annual examinations take place, and when the system is more advanced, few soldiers will return to their homes uneducated.

Libraries for Officers.—The Minister for War has also established libraries on a larger scale for the benefit of officers; at the headquarters of divisions, such as Lyons, Luneville, Versailles, and the camp at Chalons, are complete, and others are in progress of formation.

Rifle School.—Officers and non-commissioned officers are instructed in the rifle school. These instruct the regiments to which they belong. The rifle depôt at Vincennes has turned out 66 officers and 824 non-commissioned of the imperial guard, and 289 officers and 3,095 non-commissioned of the line.

Vocal Musical Instruction.—The remarkable success of the method followed in the normal gymnastic school, after Chevé, has induced the Minister at War to order instruction in vocal music in every regiment; the teachers to be taken from the normal school at Vincennes.

Small Sword, Sabre, and Lance Instruction.—The Minister of War has established a course of instruction in the use of the small sword, sabre, and lance, in the normal school of gymnastics at Vincennes.

Military Justice.—The council of war and the two councils of appeal have been suppressed with a view to economy, and their functions have been divided amongst the other military tribunals.

Military Prisons.—Military prisons are no longer provisioned by contract.

Cavalry Remounts.—In 1866, at the mean price of 800 frs.

(32*l.*), 8,586 effective horses were purchased. This successful result justifies the permanent depôts for purchase, so that horse dealers and breeders may always know where to go to.

Horses Lent to Cultivators.—After the campaign in Italy the army possessed more horses than it required for a peace establishment; 22,000 horses were lent to the farmers, 2,400 were withdrawn for Mexico and Algeria, about 7,000 died, but in 1866 about 12,000 remained with the farmers in an effective state; but as after seven years' possession the horses were to become the property of those to whom they were lent, on the 1st January, 1867, not more than 4,802 would be in the hands of the farmers.

Artillery.—The manufacture of powder, which was formerly in the financial department, by the order of the 17th June, 1865, was transferred to the artillery, which has made cannon, cartridge, and mining powder.

Small Arms.—The consideration of the best kind of small arm was under the permanent commission at Vincennes, who finally determined, January, 1866, on a breech loader, and it has been adopted under the name of Model Rifle of 1866. Suitable machinery has been erected at Puteaux for the production of these rifles. All the machinery required has been ordered from private parties. In the month of April, 1867, this manufactory will be able to produce rapidly all the small arms required for the army. The foundry at Bourges has been completed, 1st July, 1866, and the new manufactory of small arms at Saint Etienne, by machinery, continues to work well.

Engineers.—The Minister of War, moved by various parties and by the populations interested, has seriously considered whether it was not possible to abandon some of the fortified places, and he came to the conclusion that ninety-eight places might be abandoned or modified, as follows:—

To be abandoned, and land sold	28
„ unclassed, but considered military	9
To maintain in classe, but to abandon the radius beyond the walls	37
„ *reduce* the zones beyond the walls	34
Total	98

The products to be applied to the completion of the fortifications maintained.

The places where the products are to be applied are named, and for what works—Paris, Hôtel des Invalids, military hospital of Val de Grâce, Havre, Lille, Belfort, Grenoble, Avignon, Toulon, Valome, Clermont, and Bourg.

Administration.—The arrangements for clothing and encamping the army being about to terminate, the alterations of the tariff with foreign countries, the admission of woollen and cotton fabrics, will permit the offer of tenders from all solvent parties.

Increased Pay—Owing to the increase of prices, the pay of captains, lieutenants, and sub-lieutenants, has been improved from the 1st January, 1867.

Commissariat. Provision Department.—With a view to economy, eight permanent modes of supply have been suppressed, and tenders are invited; as soon as the results of the late harvest were known, the War Department made large purchases of oats before prices could rise, greatly to the advantage of economy.

Notwithstanding the enhanced price of provisions, the ordinaries for the soldiers have even improved, owing to the contracts being made for each battalion instead of each company, &c.

Hotel des Invalides.—On the 29th June, 1863, some modifications were made which effected a saving of 52,000 frs. without touching efficiency.

School of Health at Strasbourg.—This hospital would seem to have the same object as that of Netley, to give practical knowledge to young surgeons.

Military Hospitals.—Some have been suppressed and their sick placed in others; and the patients of the hospitals of Toulon and Bonefacio have been transferred to the maritime hospital. Special arrangements. have been made with respect to nurses. On the 1st January, 1865, a common system for hospital supplies was ordered, which in 1866 was found to have worked well.

Exposition Universal of 1867.—The Department of War supplied specimens of arms, cannon, ambulances, in fact of every thing connected with war and its operations, to the exposition.

Depôt of the War Office.—This department embraces topography, illustrated by engravings; galvano-plastic, and photography.

Algeria.—It is only necessary to say that the moveable columns have reduced the rebels to submission. Proprietary rights are being established.

Mahomedan Laws.—Justice is being administered amongst the Arabs according to Mahomedan law, and public instruction and schools of art established.

Eyropean Population of Algeria.—The quinquennial census, in 1866, gives 217,990 European inhabitants, and 8,616 connected with religious establishments, penitentiaries, and benevolent institutions. In 1861 the fixed population was only 192,746.

Public Works and Railways.—The Society General of Algiers have received annuities at present of 12½ millions of frs., and for the future will receive 16,666,666 frs. for roads, draining marshes, irrigation, supply of water, and planting woods. The railways are making great progress by the companies to whom concessions have been granted. Various other details are given with respect to the finances, commerce, &c., &c.

Marine.—Not any modification has taken place in 1866 in the disposition of French vessels of war in different parts of the globe, for the protection of French interests.

Murder of the Missionary in Coree.—The French admiral in China, in consequence of the murder of the missionary, ascended the River Han Kiang and destroyed the capital of Coree, called Seoul.

Japan.—In Japan, at the request of the Taicoon, French engineers have constructed a dock at Jokoska for the repairs of ships. The French force in the East has only been augmented by 300 marines.

Cochin China.—Affairs are, on the whole, satisfactory, and the charges on France have been diminished.

Proprietors.– The native proprietors in Cochin China inscribed on the registers have increased from 35,778 in 1865, to 39,369 in 1866.

Agricultural Exhibition.—An agricultural exhibition has taken place at Saigon, and succeeded.

Public Instruction.—Public schools for males and females have been opened. Twenty-four schools are attended by 684 students. The girls' school, under the Sisters of St. Paul of Chartres, from want of means is confined to 100 girls.

Explorations.—Explorations are taking place in Cambodji; the ruins of Angier have been examined beyond the great lake, and the principal branch of the great river Me Kong navigated.

Madagascar.—The squadron on the coast of Madagascar has facilitated negociations with the Hove Government. In the Gulf of Mexico, and on the coasts of the Pacific the French navy secure French interests.

Details of Decrees.—Details are then given of decrees issued affecting modifications in naval matters.

Marines.—In consequence of the small number of marines left in France, it has been necessary to augment the marine gendarmerie for the charge of the arsenals.

Fisheries.—In 1866 the sale of fish produced 41,009,500 frs.; 15,898 boats and 57,961 seamen were engaged in it, being an increase over 1865 of 5,362,328 frs., 470 boats, and 1,665 men.

Piers.—Grants for piers have been given for many places.

Oyster Beds.—Oyster beds have been carefully looked after.

Marine Pensions.—On the 1st January, 1866, the amount of pensions in the marines amounted to 13,718,000 frs., and by 31st December would be 14,471,000 frs.

Besides the pensions the chest of the Invalides has contributed

600,000 frs. to seamen who, by reason of their infirmities, required aid.

Shipwreck Society.—The society under Admiral Ryault de Genouilly is developing itself rapidly; in 1866 there were established twenty-four stations on the coasts with lifeboats, and others are being added.

Shipbuilding.—In 1865 the number of ships of war was 129; on 31st December, 1866, the number was 130, as follows:—

		Mixed.
Frigates, iron-clad	13	—
Corvette "	1	—
Coastguard "	1	—
Ships, not iron-clad	12	23
Frigates "	18	6
Corvettes	12	—
Despatch-boats, paddle	44	—
	101	29
Total	130	

So that there was an addition of only one ship of war in numbers to the French navy in 1866. The following were replaced:—one was old, one lost, and five struck off the list; and these were made up by three iron-clad frigates of 1,000 horse-power each, one corvette not iron, and three despatch-boats (paddle) of 450 horse-power.

Complete List of Steam Vessels Finished.

	Number.	Horse-power.
Vessels and frigates, armour-plated	+13	12,000
Corvettes, armour-plated	+1	500
Coastguards "	+1	500
Batteries for roadsteads, armour-plated	+14	2,475
" lakes and rivers "	+11	460
Screw steamers (rapid), not armour-plated	12	10,200
" transports "	23	13,600
Frigates, screw (rapid) "	18	10,080
" transports "	6	1,180
Paddle frigates " "	13	6,140
Screw corvettes, not armour-plated	12	4,970
Paddle " "	8	2,720
Screw despatch-boats "	44	6,045
Paddle " "	32	5,870
Gunboats, wood "	40	2,156
" iron "	25	420
Screw transports, storeships not armour-plated	47	11,500
	340	92,106

On the 31st December, 1865, the list contained only 327 vessels and 90,000 horse-power, an increase of 13, as follows: new vessels, 25; lost, 1; struck out of the navy, 11. Increase 13.

Building, Twenty-Eight Vessels of 12,670 *Horse-Power.*

4 frigates, armour-plated	3,800
7 corvettes "	3,150
3 coastguards "	1,590
2 batteries for roadsteads, armour-plated	300
1 screw frigate, not armour-plated	480
3 corvettes "	1,350
7 despatch-boats "	1,500
1 transport "	500

Sailing Ships.—Numbered 82, comprising only one vessel of the first class and 15 frigates.

Naval Arsenals.—At Cherbourg, Brest, Lorient, Rochfort, and Tulon, all the necessary works and defences have been completed.

Gunnery.—The Government has become aware that, owing to the improvement in rifled cannon, it has become necessary to thicken the iron plates gradually 8 to 11, and ultimately in some parts of a vessel, to 20 and 24 centimetres; and the weight of cannon have risen through 5 tons to 8, 14, 20, and even beyond; and the weight of the projectiles have risen to 15, 20, 75, 150, to 230 kilogrammes. These changes effect seriously the previous relations between land and sea defences. All cannon are now rifled and load at the breech; the projectiles oblong, and they are experimented with on board the Magnanime, la Savoie, and la Belliqueuse. The foundries are in course of adaptation to meet these colossal castings.

Colonies.—The colonies are under the Minister of Marine, but as I have given an account of them in my Paper on "The Comparative "Organisations of the English and French Navies," published in the *Statistical Journal,** it is unnecessary to say more than a few words.

Immigrants from India.—The famine in India in 1866, has furnished the French depôts of Pondicherry, and Karikal has supplied a sufficient number of coolies for exportation to Guadeloupe, Martinique, and Guyane. The financial state of Réunion (Bourbon) limited the importation.

Colonial Bank.—The colonial bank has lent 36,090,428 frs. up to the end of 1866.

African Settlements.—The French settlements on the coast of Africa, Senegal, Goree, and others, are increasing their agriculture and trade; and the protection given to neighbouring native tribes is leading to their civilisation and the decline of the slave trade.

Foreign Affairs.—In Germany and Italy the edifice of 1815 has fallen to the ground, and France has no reason to afflict itself for the event, and has not had to draw the sword in effecting the result. The federal system of Germany was not in accord with modern ideas; but as the lengthened review embraces politics only, the Statistical Section may not think it desirable to have more said.

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* Vol. xxix, pp. 36 *et seq.*

Commercial Affairs.—The commercial reform effected by the emperor in 1860 is daily developing itself satisfactorily; and France desires to put itself in the same commercial relations with other States as with England.

Universal Code of Maritime Signals.—A common or universal code between England and France, for vessels of war and commerce, has been adopted, and progress is making in getting other States to adopt it.

Fisheries.—On the vexed question of fisheries France and England have appointed a mixed commission to draw up a convention.

International Laws.—Notwithstanding the precise terms in which international acts are drawn, and notwithstanding the good faith of the parties, the difficulties of interpretation lead to daily misunderstandings, and there remains yet much to be done in this matter.

Final.—Such is the report on the exact state of the empire of France, presented annually at the commencement of each session to the Senate and Legislative Bodies, and which is placed in the hands of every member of those bodies, as a guide to his legislative action during the session. Everywhere, and in every branch of the administration, there is the same energy and systematic organisation, embracing the minutest details. It were well that the English Houses of Parliament had a similar exposé presented. A report of progress with regard to our empire in India finds its way to Parliament sometime during the session; but its bulk deters members from reading it, as it is in two or three folio volumes. It wants condensation and systematic arrangement. This year, however, an admirable octavo pamphlet of the statistics of India for twelve to fifteen years past, has been laid upon the table of the House of Commons, and it will no doubt be continued. The Statistical Department of the Board of Trade has for some years past presented a similar volume of "The Statistics of Great Britain and "her Colonies," which are invaluable for reference, but they do not supply the place of the French "Report."

MISCELLANEA.

CONTENTS:

	PAGE		PAGE
I.—General Results of the Commercial and Financial History of 1867	76	III.—Co-operative Societies	94
II.—Statistics of British Gambling	91	IV.—The Last Harvest	97
		V.—Public Instruction in Turkey	99
		VI.—The Quarterly Tables	99

I.—*General Results of the Commercial and Financial History of* 1867.

From the *Economist*, and in continuation of the annual series for 1863, 1864, 1865, and 1866, which have appeared in that paper. See *Journal*, vol. xxx, pp. 138 *et seq.*:—

"In our Review of 1866, we said that that year had 'left behind it sinister influences which will penetrate far into 1867, or perhaps into 1868,' and the events of the last twelve months have confirmed this expectation. Nearly the whole of 1867 has been occupied in correcting the mistakes which preceded, and retrieving, as far as possible, the losses which were inflicted by the crisis of 1866. The year has been, therefore, throughout its whole course, a period of arrangements, liquidations, compromises, retrenched expenditure, circumscribed trade, and general indisposition to trust the future. It has been a year of strict supervision of all elements of cost—a year of declining wages and of stern comparisons between English and foreign capabilities of commanding neutral customers.

"Except towards the end of 1867, foreign politics have given but little trouble. The invasion of the Papal States by Garibaldi, in October, and the renewed French occupation of Rome, occasioned, for a few weeks, a degree of apprehension. But the larger danger of a quarrel between France and Germany subsided as the year advanced, and as it became more manifest that the German people, north and south, however divided among themselves on a few questions, would act as a single State in repelling a foreign enemy.

"The war in South America, waged by Brazil, Buenos Ayres, and the Argentine Republic, against Paraguay and its dictator, Lopez, has become more serious with the lapse of every month. Unless speedily terminated, it will greatly cripple all the States engaged in it; and, as regards Brazil, may lead to most complicated evils. The practical inaccessibility of Paraguay, and its immense distance from the coast, will probably compel the allies to abandon the war. This South American conflict, disturbing, as it does, the progress and organisation of large areas of production, is yet another example added to the long catalogue of wars which, since 1851, have prevailed over the world, and entirely distorted the course of ordinary supply and demand. The insurrection in Crete, against the Turkish Government of the island, has been too small an affair to lead to much mischief; and possibly it may produce, indirectly, a great good, if it makes manifest to Western Europe the pestilent politics of the Greek propaganda at Athens, and the utterly unscrupulous measures employed by them to irritate their nearest neighbour, and, in many senses, their best friend.

"The English expedition to Abyssinia, despatched in October, is a great misfortune. The system of the Foreign Office in permitting any persons to assume an official character in the dominions of a remote and savage ruler, deserves the most marked reprehension. If adventurous travellers think proper to risk their lives in African wildernesses, they must do so as private persons, and in no way under the Queen's commission. Instead of costing two or three millions sterling, this wretched squabble with King Theodore will certainly cost ten or twelve, and may expose us to formidable risks. The immediate effect of the expedition was to find employment towards the end of the summer for a considerable number of vessels, chiefly steamers, then lying idle, and in this way to afford sensible relief to the freight market. The amount per month being disbursed for freight is said to be nearly half a million sterling.

"There are symptoms, perhaps, that the condition of armed peace, under which Europe has laboured for five or six years past, is becoming too costly to be borne much longer. The burden is most acutely felt in France. The Army Organisation Bill, just passed, after great delay and discussion by the French Chambers, is disliked in the provinces; and the loan of seventeen millions sterling, about to be raised by the Emperor's Government, is severely criticised as a desperate price to pay for the indulgence of military vanity. In North Germany, the events of 1866 have hitherto condoned the severe financial burdens arising out of them; but the extensive destitution prevailing in several districts, particularly in East Prussia, is creating a reaction in favour of retrenchment. In Italy the Government is both too weak and too blundering to grapple with the excessive army expenditure. But in Austria, one of the earliest results of a really responsible executive has been a reduction and reform of the army beyond any former precedent in that country. Russia is, perhaps, more severely pinched than France by its excessive outlay on military and naval armaments, and, in spite of occasional spurts of arrogant interference, it is not probable that real difficulty will arise from Russian politics. So long as the present Government prevails in France, and the external action of that country is dependent on the will, the varying health, and the uncertain life of the emperor,—already aged and prematurely feeble,—it is impossible to apply the ordinary rules of reasoning. But, apart from caprices not to be foreseen, it is a possibility that the next year or two may witness a marked diminution in that extravagance of military equipment and expenditure which has been so great a hinderance to the increase of wealth during the last twelve years.

"The Harvest of 1867 was almost universally bad or indifferent. In the circular quoted *passim*, Messrs. Horne give a full account of the extent and wide diffusion of the deficiency. The winter of 1866-67 was exceptionally severe—especially in this country where, in January (1867), there was for two or three weeks a depression of temperature equalled only at rare intervals of time. Over the whole north of Europe and a considerable part of Germany, the grain crops of 1867 were alarmingly deficient. The maize also failed to the extent of a third, or even a half. In the United Kingdom the wheat crops, notwithstanding apparent strength before harvesting, have proved to be largely deficient, and the potato crop is reckoned the worst since 1845-46. The harvest in the United States and Canada was regarded as highly favourable. But the threshing has revealed a more unsatisfactory result. The only really great crops have been in Hungary and along the lower Danube, and in these regions the increased demand and high prices have conferred the most solid advantages.

"If we take the *Gazette* average price of Wheat in England in the last week of October—that is, at a time when the character of the harvest had been generally ascertained—for the last five years, we shall the better understand the deficiency of 1867. The figures are:—

	s.	*d.*	
26th October, 1867	70	8	per imperial quarter.
" '66	52	6	"
" '65	42	4	"
" '64	38	6	"
" '63	40	-	"

"The very unfavourable character of the harvest of 1866 made itself felt in a sensible degree before the end of that year; for, on 28th December, 1866, the average price had risen to 60*s.*, and it gradually advanced till, at the end of May, 1867, it stood at 65*s.* 3*d.* In the year and a-half, therefore, which have elapsed since July, 1866, we have had in this country a price of wheat from 60 to 80 per cent. above the prices which prevailed in the three years, 1863-65; and the same remark holds good of a large part of Europe and America. In the wide diffusion of a calamity of this magnitude, there is afforded at once an explanation of a large part of the difficulties of 1866 and 1867, and the present time.

"The revelations necessarily arising out of the sinister events of the last two years are gradually enabling us to understand, with tolerable precision, the causes which produced the inflation of the Prosperity Years, 1863-65. The commencement of the American War on a large scale in 1861 saved the Lancashire manufacturers from losses of the most extensive kind, on the enormous production of the previous year, 1860. Instead of the shipments to India and elsewhere being sold at prices far below cost, they produced returns in many cases of extravagant profit. All this unexpected cash, added to the temporary cessation of the mills in consequence of the dearth of cotton, produced such a plethora of unemployed capital in Lancashire and other parts as had not occurred before. In 1862 came the enactment of limited liability, and with it the expectation of large profits by the application of the new law to ordinary partnership concerns. The result was, the rage for limited liability companies during 1863-65. Fostering and aggravating the tendency of these events, there was the reckless 'financing' of Overend, Gurney, and Co., the Joint Stock Discount Company, and a variety of other 'financial institutions' of the same order. The facility of raising money started forward in accelerated motion the whole tribe of railway contractors, projectors, and schemers; and so it came to pass that for three or four sessions, railway bills were passed by the hundred,* and production and wages of all kinds raised step by step, until the rate of discount was maintained at 8 and 10 per cent. for months together, and, until at last, the process could be carried no further, and the crisis came in the early part of 1866.

" Since that catastrophe, we have been painfully retracing our steps. The channels of trade have been largely purged of the needy and incompetent people who suddenly became apparently rich in the prosperity years, and embarked in large ventures, because Overend and Co., and other similar 'institutions of credit,' gave them almost unlimited assistance. The railway contractors and schemers have been dispersed by the operation of the same causes; and the limitation of demand has gradually led to a fall of prices and wages, until a point of depression had been reached almost as low as in 1859, and, in some cases, as low as in 1857.†

" In the following Table (I), we adopt the example of former years in presenting in a condensed form the *Percentage* comparison

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* The railway legislation of the six years 1862-67, is shown by the following table for the several Sessions of Parliament:—

Bills.	1862.	1863.	1864.	1865.	1866.	1867.	Total, Six Years.
Lodged	230	258	327	406	398	151	1,776
Withdrawn............	46	66	58	67	123	46	406
Rejected	34	42	60	63	65	10	274
Royal assents	150	150	209	276	210	95	1,090

Note.—The bills lodged for Session 1868, are only 109.

† "As an evidence of the extensive retrenchments which are being carried out in all kinds of expenditure, the following paragraph is copied from the *Globe* newspaper of 20th February, 1868:—'The financial collapse of 1866 is having deeper effects than has been imagined. The public has been made acquainted with several great failures following close upon it, but the cases of hundreds who have suffered severely will, perhaps, never come to light. A striking fact, however, in connection with Her Majesty's Customs, clearly proves how great the devastation has been among private individuals in consequence of that panic. In the Inland Revenue Department at Somerset House, as the public are aware, is kept a register of all those persons paying duty on carriages and horses, and at this office notice has been received, since the 31st of December last, that 1,600 private persons intend to discontinue keeping their carriages, and claim, therefore, to be exempt from duty in the financial year 1868-69. This will cause a noticeable deduction in the balance which the Chancellor of the Exchequer will next have to exhibit. The loss to the revenue by these withdrawals will not be less than 10,000*l*. per annum.' "

of prices at the end of 1868, as compared with 1st January, 1867, and former dates. The note at the foot of the table explains its construction and the mode of reading it.

(I.)—*Wholesale Prices in London. Comparison of* 1*st January*, 1868, *with Three Former Dates, stating in Percentages the Degree in which the Prices of* 1*st January*, 1868, *were Higher or Lower than the Prices prevailing at the Three Selected Earlier Dates.*

Articles.	Higher	Lower	Higher	Lower	Higher	Lower	Higher	Lower
	Than 1st January, 1867.		Than 1st January, 1865.		Than 1st January, 1859.		Than 1st July, 1857.	
	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.
Coffee	—	5	—	13	10	—	—	6
Sugar	10	—	6	—	—	8	—	40
Tea	—	4	—	3	—	14	—	32
Wheat	25	—	75	—	70	—	10	—
Butchers' meat	—	7	—	10	—	—	7	—
Indigo	5	—	14	—	33	—	27	—
Oils	—	1	5	—	17	—	2	—
Timber	—	1	—	3	4	—	—	9
Tallow	—	7	6	—	—	18	—	50
Leather	5	—	4	—	18	—	—	10
Copper	—	12	—	15	—	25	—	35
Iron	—	2	—	10	—	14	—	30
Lead	—	2	—	4	—	12	—	26
Tin	13	—	—	3	—	23	—	34
Cotton	—	60	—	74	—	16	—	17
Flax and hemp	4	—	—	8	5	—	—	—
Silk	—	12	2	—	16	—	—	25
Wool	—	20	—	27	—	11	—	23
Tobacco	—	—	—	40	20	—	5	—
Cotton cloth	—	36	—	55	—	—	—	—
Total Bank Note circulation of Great Britain	3	—	1	—	7	—	7	—

Note.—This table, deduced from the percentages given in Appendix (D), may be read thus:—On 1st January, 1868, coffee was 5 per cent. *lower* than on 1st January, 1867; 13 per cent. *lower* than on 1st January, 1865; 10 per cent. *higher* than on 1st January, 1859; and 6 per cent. *lower* than on 1st July, 1857; and the like for other articles.

"If we compare 1st January, 1868, with 1st January, 1865, the fall of general prices and the rise in wheat is very apparent. The greatest fall occurs, of course, in cotton, and all the articles dependent on it and on the American war. Speaking in general terms, our impression is that at the opening of 1868, prices and wages are from 15 to 25 per cent. lower than in 1865. In the iron trade, it is probable that throughout the country wages in money are nearly 20 per cent. lower than two years ago, and for actual productive purposes perhaps 25 or 30 per cent. lower, taking into account the better discipline of the men, and the exclusion which has taken place of the turbulent and unskilful hands.

"It is very desirable, but very difficult, and perhaps, impossible, to reduce to a satisfactory numerical test the variations of prices and wages as between different dates. The *percentage* method of the preceding Table (I) accomplishes a little, and, so far as it goes, is not seriously defective. The following Table (II) attempts to collect into a still smaller compass the same class of facts, but, as explained in the foot-note of the table itself, many qualifying circumstances must be allowed for in using the figures it contains:—

(II.)—*Approximate Table of the Variations in Wholesale Prices,* 1857-68, *as Represented by the Totals of the Index Numbers given in Appendix* (D).

Date.	Total Index Number.	Difference.		Difference.	
		More.	Less.	More.	Less.
(I.)				Per cnt.	Per cnt.
1851, 1st January	2,294	—	—	—	—
1857, 1st July	2,996	708	—	80	—
'58, 1st January	2,612	—	384	—	13
'59, "	2,543	—	69	—	2
(II.)					
1864, 1st January	3,787	1,244	—	48	—
" 1st July........................	3,792	15	—	—	—
1865, 1st January	3,525	—	267	—	7
" 1st July........................	3,387	—	138	—	4
1866, 1st January	3,544	157	—	5	—
" 1st July........................	2,922	—	622	—	17
1867, 1st January	3,024	102	—	4	—
" 1st July........................	2,833	—	191	—	6
1868, 1st January	2,582	—	251	—	9

Note.—The "total index number" in this table is arrived at by adding together the numbers in Appendix D* under the corresponding dates—thus, 2,996 is the total of all the numbers at 1st July, 1857 (excluding, of course, the 101 which represents the bank note circulation). It must be carefully remembered that the total index numbers obtained in this way can be only roughly *approximative*, inasmuch as each article, without regard to its importance, contributes in the same degree to the result,—thus at 1st July, 1857, *raw silk* is counted as 204—the article itself being of vastly less importance than *wheat*, which stands at 118, and the same with several other commodities. Still, when careful allowance is made for these corrections, the *total index number* has some uses. In the years 1864-66, the high prices of *cotton* and *wool* chiefly account for the enlarged index numbers.

* Reference to the Appendix of the original paper, as published in the *Economist* on the 14th March.

"The evidence of this table, taken in conjunction with other facts, quite justifies the conclusion that in the years 1864-65, general prices had risen to a level higher, perhaps, than had been attained since the peace of 1815—and they also justify the conclusion that the continued fall of the last two years has reduced us to a point almost as low as in the opening of 1851—the year in which culminated the long train of unfavourable influences commenced with 1847, and extending through the three following years.

"The slack trade of the last two years has brought to a stern test the pretensions of the Trades' Unions in this country. During the prosperity years, these combinations were almost supreme. The competition of employers enabled the unions to substantiate one claim after another, until a point had been almost reached when the discipline of large bodies of workmen became impossible. The mere mob law of the majority of idle, noisy, and unskilled 'hands,' was fast becoming the rule in every trade, and was driving ability and capital out of the field. The panic has effectually corrected this evil, and has, in truth, saved the industry of the country from one of the greatest dangers which ever beset it. Strikes have been organised, during the last two years, in almost every considerable trade—in some cases, as among the ironworkers, there has been a series of strikes—but in every case they have failed. Where a demand did exist it has been destroyed by the strike, and the men have been taught by the kind of rough experience which, in their present temper, they seem alone able to understand, that wages are not even to be procured at all, much less raised, by mere combination. The Royal Commission on Trades' Unions, under Sir William Erle, has already rendered great service, by bringing to light the atrocities of the trade committees at Sheffield and Manchester, and by collecting from all quarters evidence of the tyrannical and mischievous regulations enforced by the leaders of the union movement.

"The inquiry into the state of Industry, trade regulations, and technical education abroad, entrusted by the Government to Mr. B. Samuelson—himself largely engaged in the iron manufacture—will also lead to useful results. In Appendix (N), an analysis is given of Mr. Samuelson's conclusions. Looking at the evidence he has collected, and still more at the unfavourable results as regards British industry of the Paris Exhibition of last year (1867), there is no escape from the unwelcome and urgent conclusion that the foreign trade of this country must be prepared to sustain itself against a competition of the most searching character. Foreign skill, capital, science, and organisation, are now fully able to dispute the supremacy of this country in several important kinds of manufacture, and we must either improve our means of production, or see our exports, and therefore its means of finding employment and paying wages, diminish, and, as a result, the pressure of poor rates and destitution increase. Severe as has been the suffering of the last two years, it is clear that no experience less impressive would have sufficed to correct effectually the previous errors and extravagance.

"The revival of the Cotton cultivation in America has already reduced the export of Gold and Silver to India to a narrow compass. Instead of the enormous drain of 24 millions sterling in each of the years 1863-64, and of 14 millions in 1865, the exports fell to 10 millions in 1866, and in 1867 to the comparatively small sum of 3½ millions. We give the facts in the following Table (III) :—

(III.)—*Export of Gold and Silver to Egypt and the East, per Peninsula and Oriental Steamers.*

	Gold.	Silver.	Totals, 1867.	Totals, 1866.
1867.	£	£	£	£
January	4,800	15,800	20,600	1,001,000
February	2,400	24,800	27,200	757,200
March	100	67,300	67,400	350,800
April	19,200	309,500	328,700	436,200
May	2,100	4,600	6,700	45,500
June	1,200	16,200	17,400	17,300
July	900	19,400	20,300	13,000
August	34,100	11,700	45,800	9,500
September	24,600	65,800	90,400	13,300
October	71,300	37,700	109,000	111,000
November	68,300	40,300	108,600	40,500
December	30,000	30,700	60,700	55,800
	259,000	644,000	903,000	2,851,700
Peninsula and Oriental steamers from Mediterranean ports	534,000	1,081,000	1,615,000	3,607,600
	793,000	1,725,000	2,518,000	6,459,300
French steamers	855,000	322,000	1,177,000	3,504,000
	1,648,000	2,047,000	3,695,000	9,963,300
1866	2,871,000	7,075,000	9,946,000	—
'65	4,349,000	9,744,000	14,093,000	—
'64	6,969,000	16,956,000	23,925,000	—
1863	8,022,000	15,136,000	23,158,000	—
'62	3,391,000	14,599,000	17,990,000	—
'61	1,427,000	8,859,000	10,286,000	—
Total	28,677,000	74,416,000	103,093,000	—
Average seven years, 1861-67	4,096,000	10,630,000	14,730,000	—

"The figures of this table disclose the most remarkable result of an export of gold and silver to the East, as follows :—

Period.	Totals.	Yearly Average.
	Mlns.	Mlns.
Seven years, 1861-67—Gold	28½	4
" Silver	74½	10½
	103	14½

"The economic and monetary revolution indicated by these figures is, perhaps, the most extraordinary in modern times. In France, the silver currency has been, in a great degree, transferred to India, and has been replaced by gold, and by a large proportion of bank notes—both entirely new facts in the history of the French circulating medium. The same thing has happened, but on a smaller scale, in Germany. A large part of the produce of the silver mines in Mexico and South America has gone to India, and the gold produce of Australia and California has supplied the means of procuring the silver from France and elsewhere. In 1867, there has been a cessation of the gigantic process of the preceding four years, and hence the large accumulation of bullion in the banks of England and France. The forced paper currency of the United States has expelled a considerable part of the metallic circulation with which they began the civil war, and the gold and silver so exported to Europe has helped to feed the drain to India and China. But the persons who are still haunted by fears of an approaching decline in the exchangeable value of gold, may derive some consolation from the reflection that at this moment six of the greatest and most populous countries of the world are, under dispensations of compulsory paper money, excessively depreciated. In the United States, the depreciation, as measured by the premium on gold, is 40 per cent; in Brazil, it is 50 per cent.; in Italy, 15 per cent.; in Austria, 10 per cent.; in Russia, about 12 per cent.; and in Turkey, about 20 per cent. The mass of paper money in use in these six countries cannot be much less than 600 millions sterling; and the whole of this vast aggregate must, in process of time, be replaced by coin. In Hungary, for example, the abundant harvest there of 1867 has already so far turned the balance of trade in favour of that country as to produce large additions to the previous stock of the precious metals.

"A few years will enable us to judge of the effects on the Indian populations of the prodigious prosperity of the last five years. The railways will have effectually opened up new markets in the interior, and will have carried European goods where they never appeared before, and the improved means and wages of the cultivators will enable them to buy articles formerly beyond their reach. All these influences will powerfully tend to make European exports to India more nearly balanced than hitherto the European imports from it; and will, therefore, reduce the trade to such an exchange of commodities as will require but small supplemental transmissions of specie. It is, indeed, conceivable that at no distant period, the current of the metals might tend more strongly *from* India than *to* it.

"The prospects of the India trade depend, of course, in an intimate degree on the complexion of events in the United States. In Appendix (P) we give, from a leading newspaper, what we believe to be as impartial a statement of the existing facts in America as can be had at present—and the result may well justify the gravest anxiety. The leading features of the situation are four, viz.—First, a state of poverty and disorganisation over a large part of the South, so complete that society is dissolved into its original elements, and industry and production have almost ceased. Second, a system of taxation of the most oppressive and harassing character, and so burdensome in amount, and so unskilfully adjusted, that it is fast destroying many branches of trade. Third, the rapid growth of a political party—especially in the Western and more vigorous States, to which States the periodical revision of the representation in 1870 will give the preponderating power—who avow the intention of repudiating a large part of the public debt, and thereby destroying national credit; and, lastly, the daily increasing bitterness of the conflict between the president and the democratic party on one side, and the republican party on the other—a conflict which seems likely to end in tearing to pieces all those parts of the constitution upon which dependence was placed to avert the destruction of the central power.

" The latest financial acts of Congress have been directly opposed to the policy of Mr. McCulloch, the secretary of the treasury. The secretary advises measures intended to bring about specie payments,—the Congress pass a special law, which prohibits in future those partial contractions of the currency permitted by former acts. Mr. Wells, the able and conscientious colleague of Mr. McCulloch, has recommended a revision of the whole fiscal system, in the sense of simplification and free trade; but it is exceedingly doubtful whether his report, forcible and exhaustive as it is, will obtain more than casual notice.

" Much greater progress has been made in 1867 towards restoring the Cotton Trade to a sound state than was expected a year ago. Put into the smallest compass, the outlines of the case are as follows :—

Period.	Average Price per Cent.	Annual Value of Cotton Consumed.	Total Annual Consumption.
	d.	Mln. £	Mln. lbs.
1867	10⅛	41	954
1866	13⅛	52	891
'65	15⅝	47	718
'64	22	52	561
Five years, 1856-60	6⅛	25	900

" As regards *quantity consumed*—that is, as regards employment and wages—1867 is already beyond the pre-war period, 1856-60—in the proportion of 954 to 900 millions of lbs. The average price, also, of 10⅛*d.* is less than one-half the price of 1864,—and a reference to the circular quoted in the Appendix, will show that for the last three months of 1867, the price of middling upland cotton was little more than 7½*d.*—or very nearly the same as the corresponding quotation during the period 1856-60. In point of fact, the difficulty of the cotton trade seems to be effectually surmounted. Lancashire is again at full work, and for the last few weeks at fair prices. The mistake committed in 1866 by the manufacturers, of producing too much, has been overcome by a year's slackened activity, and the foreign markets seem to be in a great measure cleared of goods. The cry now is, that the supply of raw cotton in 1868 will be insufficient, and since 1st January last, prices at Liverpool have risen rapidly, until midland uplands, which were 7½*d.* early in January (1868), are now (end of February) 10½*d.*, and are said to be likely to reach 12*d.* Whatever may be the immediate results of this formidable and sudden recovery of price, it will indirectly have the good effect of checking any undue haste in the abandonment of cotton culture in the producing countries. The effects of the continued decline in cotton during 1865-67, have been most disastrously felt in Liverpool. It has been said that 1865 ruined the speculators, 1866 the merchants, and 1867 the producers. However that may be, it is certain that the destruction of houses in the cotton trade, both in Bombay and Liverpool, has been more extensive than at any former period. In Bombay, nineteen out of twenty-seven banks have failed. In Liverpool, the most conspicuous failure has been that of the Royal Bank of Liverpool in October (1867), and besides this stoppage, several smaller banking and exchange institutions in the same town came to an end. Looking at the violent fluctuations with which 1868 opens, it is tolerably certain that the mischief is not yet exhausted.

" The following Table (IV) gives the facts more in detail:—

(IV.)—*United Kingdom*, 1856-67. *Estimated Value of Raw Cotton Imported, Re-Exported, and Consumed.* (*Ellison and Haywood's Circular.*)

[00,000's omitted, thus 53,8 = 53,800,000*l.*]

Years.	Imported. Value.	Re-exported. Value.	Consumed in United Kingdom. Value.	Average Price per Pound.	Total Weight Consumed.
	Mln. £	Mln. £	Mln. £	*d.*	Mln. lbs.
1867	53,8	14,0	41,2	10⅛	954,5
'66	75,8	19,5	51,9	13⅛	890,7
1865	63,2	17,1	47,2	15¾	718,6
'64	82,2	22,1	52,4	22	561,2
'63	58,0	21,6	40,7	20⅛	476,4
1862	31,1	12,4	26,7	14	449,8
'61	38,7	7,9	32,2	7⅜	1,005,5
'60	36,6	5,5	28,9	6⅛	1,079,3
1859	32,2	4,1	27,6	6⅛	977,6
'58	27,2	3,3	24,8	6⅜	907,8
'57	28,6	3,5	24,8	7⅛	825,0
'56	26,0	3,3	22,7	6⅛	Not given

" Next to the cotton trade, the *Iron industry* of this country is the most important, and accordingly in the Appendix we have collected very full particulars of the course of the iron trade in 1867.

The severity of the pressure has been exceedingly great in this trade. The *Iron Trade Review* (Newcastle), speaking of 1867, says:—'It would be tedious to detail the fluctuations which have marked the passing months. It is sufficient to state that, despite many temporary and sectional changes of an encouraging character, the average position of the trade has continued to gravitate slowly downwards, until at the beginning of 1868 we have arrived at a stage of almost universal depression. The causes of the stagnation are not far to trace. They are, briefly, *over-production*, arising from an inflated and exceptional demand for iron a few years ago; the collapse of home and foreign railway schemes for extensions and new lines; the defective harvests of 1866 and 1867; and the injuries inflicted upon the trade, owing to the action of trades' unions.' The pressure has been most severe, perhaps, in South Staffordshire, a district which seems to be approaching the end of its career as a leading iron district. North Staffordshire, South Wales, and Scotland, have all suffered acutely, nor has the pressure failed to cause great distress in Cleveland, the district in which, from natural advantages, the trade seems likely to develop itself with remarkable vigour. It is already a notable sign in the trade that Cleveland can afford to send pig iron in large quantities to Scotland, and there are sagacious persons who foresee that iron shipbuilding will, before long, become concentrated in the Clyde and Tyne, as the two rivers possessing the means of greatest economy of production. Discoveries are being frequently made of the extension of the ironstone beds into the midland districts of England, as, for example, in Northamptonshire, Oxfordshire, &c. The last two years have freed the iron trade from a shoal of speculators and adventurers, and the whole economy of the manufacture has been thoroughly investigated with a view to economies.

"The most prominent topic of the year has been the discredit and exposure which has overtaken several of the largest Railway companies. In 1866, the *London, Chatham, and Dover Company*, the *Great Eastern Company*, and the *North British*, were compelled virtually to seek arrangements with their creditors. In 1867, this list was extended by the addition of the *Great Western Railway* and the *London and Brighton*. In the case of the *Caledonian Company*, the former directors have been displaced after a prolonged discussion and investigation, in which it was proved that the dividends of several years past have been unduly inflated by the process of charging to capital expenditure which properly applied to revenue. In the case of the *Midland Company*, profound excitement was occasioned in December (1867), by the issue of an official circular announcing that five millions more capital were required to complete new lines and extensions—the principal of which were the new line from Bedford to London, and the line parallel to the existing railway from Lancaster to Carlisle. The *North Eastern Company* were attacked with accusations similar to those sustained against the *Caledonian Company;* but the *North Eastern* board met the case upon its merits, and succeeded in satisfying their shareholders and the public that the assailants were in error. The companies which have entirely escaped hostile criticism are the *London and North-Western*, the *South-Eastern*, the *Great Northern*, the *London and South-Western*, the *Lancashire and Yorkshire*, and the *Manchester, Sheffield, and Lincoln*.

"The most scandalous case of all is certainly that of the *Brighton Company*. Investigation has shown that for a series of years, the dividends paid on ordinary stock have been fictitious—that is to say, they have been paid by additions to capital—that extensions and new lines of the most absurd character have been undertaken, and that the entire administration of the line has been reckless and irregular.

"The events of 1866-67 constitute the third great epoch in the railway history of this country. The first epoch was from 1832 to 1836, when most of the leading trunk lines were projected and sanctioned; the second epoch was 1844-46, when, under the influence of the mania which then prevailed, the public committed themselves to an expenditure on new lines utterly beyond the available resources of the country. The scandals and defects which have now been brought to light resolve themselves into vices of *internal administration*. A vigilant and competent executive would render impossible the undue relief of revenue to the prejudice of capital, and would render equally impossible excessive expenditure on lines and works incapable of producing adequate returns. The distress and losses which have overtaken so many thousands of railway shareholders will work the necessary cure after more or less blundering; and as almost every part of the country is now provided with railways, the process of internal reform will not be interrupted by the incessant interference of intrigues for the construction of new lines.

"The Liquidations of 1867 have been as unsatisfactory as in former years. There are scores, perhaps hundreds, of bankrupt estates in the hands of liquidators, of which it seems to be impossible to ascertain any reliable particulars. Nor is this to be wondered at, so long as the present monstrous system is permitted to continue. A firm, or an individual, find themselves unable to meet their engagements—they send out a laconic circular announcing the fact, and adding that they have placed their books in the hands of the eminent accountants A. B. C., who will forthwith prepare a statement, &c. The statement is prepared accordingly, sooner or later, and generally shows a large surplus of assets, and promises ten or fifteen shillings or more in the pound. The eminent A. B. C. are named liquidators, and after a year or longer, there is a first and final dividend of sixpence or a shilling; and the 'unfortunate' bankrupts have contrived all the time to live in the same splendour as before the stoppage, and to start business again apparently upon as large a scale as ever. This is not in the least an imaginary picture. There are at this moment scores of cases, the details of which are even more disgraceful, and such cases must continue to be the rule so long as the defaulters are permitted to select their own accountants and liquidators, and practically prescribe their own terms to their creditors.

"In the case of Overend, Gurney, and Co., Limited, an appeal to the House of Lords confirmed the decision of Vice-Chancellor Malins, as regards the responsibility of the shareholders for the debts of the company, notwithstanding the gross misrepresentations of the prospectus—but the judgment expressly declared that the promoters and directors of the company were guilty of gross fraud towards the parties who became shareholders, and that the directors were distinctly liable to these parties for the losses incurred. So far, no public measures have been taken against the directors, and it seems to be probable that the concoctors of one of the most flagrant commercial scandals which ever occurred will escape the punishment they so amply deserve.

"In the case of the *London, Chatham, and Dover Railway*, it is probable that proceedings, now before the Court of Chancery, will, at least, bring to light the leading details of the extraordinary process by which 10 millions sterling of actual money was extracted out of the public for the purposes of one of the most reckless enterprises ever undertaken.

"The *Royal Bank of Liverpool* failed on 21st October last, with 1¾ millions of liabilities; and a committee of investigation was appointed under a public pledge then given by the chairman of it, that no concealment would be permitted, and that the whole story should be made plain to the sufferers. But more than four months have elapsed, and nothing further has been heard of the matter. The case of the notorious *Barned's Bank, Limited*, also a Liverpool failure of 1866, remains likewise in convenient obscurity.

"The reform of the bankruptcy law has been so often attempted, and so often failed, and there seems to be such an incompetency in Parliament to deal with the subject in an effective way, that the prospects of any real amendment in the treatment of defaulting debtors are, in the highest degree, unsatisfactory. And yet it is every day more clear that if this country is to prosper at all, a remedy of the most absolute kind must be speedily found for the scandals which now abound on all sides.

"In one instance, the courts have been able to overtake with exemplary penalty the manager of a company which raised money by false representations. We refer to the case of Crossley *v.* Elworthy (reported in Appendix R), arising out of the proceedings of the London and Colonial Company, of which Elworthy was managing director, and against whom the Court of Exchequer has given a verdict for 35,000*l.* for the losses sustained by the plaintiff Crossley, through fraudulent pretences and statements.

"We also report in Appendix (S) a second important case, Grissell *v.* Bristowe, the effect of which, by fixing the 'dealers' on the Stock Exchange with the obligation of registering shares purchased by them, will go a long way towards destroying the marketability of shares in companies in any degree of questionable solvency and character—and, of course, will put an end to the multitude of concerns which are set up chiefly for Stock Exchange purposes.

"It is probable that we enter upon 1868 with the point of lowest depression turned in most of the leading trades, and appearances seem to justify the expectation of a slow revival of confidence and extension of operations. If the coming harvest should be generally abundant over Europe, the beneficial effects cannot fail to be felt in a marked degree before the end of the year. But, however disastrous may have been the experience of 1866-67 in many quarters, these two dark years will, in future, be regarded as the period of rough discipline which saved this country from evils which were rapidly destroying its resources and character."

Appended to the original article, as printed in the Supplement to the *Economist*, is a series of valuable tables. The subjoined list will convey some notion of their comprehensive scope:—

A.—New Joint Stock Companies brought out in 1867, and also the Corresponding Figures for the Five Years, 1863-67.
B.—Wholesale Prices of Commodities in London and Manchester: Average of Six Years, 1845-50: Selected Dates, 1851-66: and Monthly, 1867.
C.—Foreign Exchange, 1841-67.
D.—Wholesale Prices, 1845-66: Proportionate Results.
E.—Bank of England: Weekly Return.
F.—Bank of France.
G.—Imports of Gold and Silver, in Millions Sterling, into the United Kingdom, 1862-67.
 Exports of Gold and Silver, in Millions Sterling, from the United Kingdom, 1862-67.
H.—Highest and Lowest Prices of some of the Principal English and Foreign Stocks and Railway Shares in the Year 1867.
I.—United Kingdom: Imports and Exports of Gold and Silver Bullion and Specie in the Years 1866-67.
J.—Gold and Silver, 1851-67: Exports to Egypt and the East, from United Kingdom, &c.
K.—Prices of Grain: England and Wales: Calendar Year.
L.—Financial and Commercial Events, 1867.
M.—Changes in Mercantile Firms, 1867.
N.—Abstract of the Official Report (December, 1867), of Mr. B. Samuelson, M.P., on the State of Industry and Manufactures on the Continent.
O.—The Half-Yearly Meetings of the London Joint Stock Banks, 1867.
P.—United States: Distress and Disorganisation in the South and Growth of the Party who Advocate Repudiation of the Public Debt.
Q.—Course of Prices in New York in 1867.
R.—Liabilities of Directors of Limited and Other Companies for Fraudulent Balance Sheets.
S.—Liability of Dealers on Stock Exchange for Shares Purchased by them.

II.—*Statistics of British Gambling.*

UNDER the title of "The Cost of Horseflesh," the following interesting article appeared in a recent impression of the *Pall Mall Gazette.* As a statistical contribution on this subject the readers of the *Journal* will recognise it as unique:—

"The importance of horseflesh (especially since it has become an acknowledged article of food) can hardly be denied. To improve the breed of the horse, therefore, is more than ever a sacred duty. And what is the best way of improving the breed of horses? Dean Close may not believe it, but better judges of horseflesh than he is have said—to run them in races. Are not the race-meetings held, not for the sake of establishing little Pandemoniums, where every kind of vice may run riot, and where young noblemen and gentlemen may enter upon that career in which it is easy to outrun the constable and overtake the sheriff's officer, but for the sake of improving the horse? And improvement of every kind costs money. You must offer prizes. Dr. Mark Pattison, speaking of the University of Oxford, says, 'We distribute in prize-money a sum of over 120,000*l.* a-year,' and that is only for the improvement of young men. Let us see what the improvement of the horse costs in the way of annual prize-money. It will be convenient to take the twelve months beginning with December, 1866, and ending with November, 1867. According to printed authority, we find that in December the prize-money given at the Donnington, Kingsbury, Ealing, and Westbury meetings amounted respectively to 893*l.*, 473*l.*, 800*l.*, and 377*l.*; or 2,543*l.* in all for the month; in January, at the Coverdale meeting, to 81*l.*; and in February the total was about 8,856*l.*, thus divided:—

	£		£		£
Manchester	269	**Windsor**	678	**Boston**	70
Carmarthenshire	642	**Lincoln**	2,403	**West Drayton**	580
Newbridge	—				
Oundle	235	**Moreton-in-Marsh**	198	**Nottingham**	1,253
Birmingham	928	**Harrow**	453	**Derby**	1,147

"As the regular season approaches, the amounts get larger and larger: in March the list is as follows:—

	£		£		£
Liverpool	3,488	**Norfolk**	219	**Epsom**	4,960
Grand Military	877	**Croydon**	1,028	**Brocklesby**	290
Chelmsford	1,060	**Margate**	265	**Lewes**	709
Chertsey	568	**Royal Artillery**	—	**Croxton Park**	1,104
County Down	183	**Warwick**	860	**Cheltenham**	1,087
Malton	402	**Bromley**	665	**Aylesbury**	353
Shipston-on-Stour	156	**Hayling**	280	**Melton Hunt**	200

The total here is about 18,784*l.* in all for the month. Commencing at once with April Fool's Day the meetings in April run thus:—

	£		£		£
Bridgnorth	195	Grantham	175	Durham	920
Cambridge	352	United Border Hunt	379	Newmarket again	17,410
Rugby	263	York	287	Howden	171
Eastbourne	160	West Somerset	518	Knighton	335
Northampton	4,485	South Wold	145	Hambledon Hunt	441
Isle of Wight	148	Abergavenny	367	Catterick Bridge	790
Newcastle	323	Scottish Hunt	410	Stratford-upon-Avon	170
Grand National Hunt	1,564	Thirsk	657	Bromyard	260
Edinburgh	274	Liverpool Hunt Club	916	West Kent	434
Albrighton Hunt	90	Aldershot	900	Kildare	1,983
Lichfield	624	Old Windsor	98	Manchester	227
Newmarket	8,953	Hendon	206	Cardiff	714
Curragh	1,447				

In all 47,795*l.* for the month. It is as well to consider the Chester meeting as having been confined to May, although it commenced on the last day of April, and thus it is found that the meetings during that merry month were:—

	£		£		£
Chester	5,860	Salisbury	2,445	Newton	1,659
Eglinton Hunt	1,161	Bath	3,982	Croydon	1,402
York	2,328	County Louth	—	Tipperary	—
Ascot	2,855	Harpenden	1,206	Cork	—
Howth	493	Epsom	18,085	Newark	127
Doncaster	1,071	Wye	168		

Or in all, 42,842*l.* for the month. In June there were:—

	£		£		£
Ascot	17,723	Bibury Club	7,275	Newcastle	3,482
West Drayton	342	Stockbridge	9,308	Worcester	1,597
Windsor	2,221	Beverley	925	Ipswich	938
Manchester	2,104	North Herts	223	Curragh	1,725
Hampton	2,067	Chelmsford	1,137	New Forest Hunt	195
Odiham	600				

In all, 51,862*l.* In July the meetings were:—

	£		£		£
Carlisle	763	Liverpool	2,570	Knutsford	708
Newmarket	5,660	Hungerford	753	Radcliffe	795
Bellewstown	413	Nottingham	2,080	Huntingdon	3,071
Pontefract	1,005	Hayling	1,053	Winchester	2,365
Reading	1,716	Bewdley	38	Southampton	1,172
Cambridge	143	Spilsby	90	Midlothian	—
Mansfield	83	Down Royal	1,400	Roscommon	—
Aldershot	582	Stamford	3,887	Wisbeach	112

About 30,429*l.* in all for the month. The Goodwood meeting having run into August, will be given to that month, for which the list runs thus:—

	£		£		£
Goodwood	17,033	Brighton Club	1,165	York	9,409
Airdrie	432	Chesterfield	554	Devon	439
Newton Abbot	164	Lewes	2,970	Plymouth	763
Ripon	847	Egham	2,211	Rainham	200
Leek	137	Wolverhampton	2,243	Derby	1,575
Brighton	2,992	Stockton	3,730	Canterbury	726
Heath of Maryborough	—	Oxford	1,709	Great Yarmouth	725
		Winlock	190	Weymouth	829
Tiverton	150	West Drayton	471	Lichfield	956
Paisley	450	Hastings	574	Tunbridge	608

Or 54,252*l.* in all for the month. In September the amounts were:—

	£		£		£
Margate	432	Kelso	1,955	Manchester	668
Warwick	2,231	Brecon	867	Newmarket	11,664
Curragh	1,675	Richmond	954	Walsall	275
Totnes	364	Hampton	1,145	Carlow	346
Wilmslow	141	Limerick	790	Tenby	368
Leicester	952	Ayr	1,315	West Dorset	135
Abingdon	996	King's Lynn	280	Gravesend	74
Doncaster	15,965	Hendon	470	Lanark	513
Folkstone	210	Monmouth	931		

45,053*l.* in all for the month. In October, taking the meetings no farther than the important meeting at Newmarket, it appears that there were prizes given at—

	£		£		£
Northampton	1,144	Newmarket	21,855	Ealing	557
Cashel	315	Northallerton	548	Hereford	1,291
Edinburgh	1,704	Cheltenham	925	Perth	500
Bridgwater	255	Curragh	1,202	Newmarket	15,165
Bedford	1,279	Ellesmere	60		

46,800*l.* in all for the month. This point being gained, it is discovered that the figures for November, 1867, are not at hand; but it matters little what twelve months are taken; and therefore we will take the amounts for November, 1866:—

	£		£		£
Lincoln	1,637	Hendon	250	Chertsey	432
Ealing	394	Leamington and Warwickshire Hunt	4,990	Croydon	1,212
Liverpool	3,622				
Shrewsbury	5,584				

Or 18,121*l.* in all for the month. So that for the amount of prize-money during a period of twelve consecutive months we have to add together 18,121*l.*, 2,543*l.*, 81*l.*, 8,856*l.*, 18,784*l.*, 47,795*l.*, 42,842*l.*, 51,862*l.*, 30,429*l.*, 54,252*l.*, 45,053*l.*, and 46,800*l.*, and the total is made out to be 367,418*l.*, which quite bears out the statement made some time ago in *Bell's Life* to the effect that the prize-money given for races comes to more than 300,000*l.* In addition to this there are, of course, the bets, without which it is declared on high authority that nobody can afford to run racehorses. The figures here set down are no doubt very incorrect, for the authorities are often badly printed, sometimes disagree, occasionally do not give (especially in the case of Irish meetings), the value of the prizes, and it does not fall to the lot of every mortal to be as accurate as the sainted Cocker; it may be pretty confidently asserted, however, that the amounts are rather below than above the mark. If, then, between three and four hundred thousand pounds be given away in a year as prize-money at the race meetings of the United Kingdom, some idea of the tremendous amount of money 'floating' about racecourses may be formed when it is remembered that in the case of every prize bets are made to the extent of some considerable multiple of its value."

III.—*Co-operative Societies.*

THE annexed article appeared in the *Manchester Guardian* of the 24th December, under the title of "The Co-operative Societies of Lancashire:"—

"The success which followed the establishment of the Equitable Pioneers Co-operative Society at Rochdale, about twenty years since, has begotten a host of imitators. Some have failed, others succeeded, the result being that at the close of 1865, according to the statement of the registrar of friendly societies, 752 of these institutions were in existence, and that 76 were dissolved during the currency of 1866. 264 societies had their rules certified during the latter year. These being new undertakings, would bring the total up to 940 for England and Wales, if we understand Mr. Tidd Pratt's statistics aright. With regard to their working, we have only the particulars of 436 societies, a large number having neglected to send to the registrar their annual accounts. This negligence for the future will not go unpunished. By 30 and 31 Vict., cap. 117, a penalty of not more than 5*l.*, nor less than 2*l.*, will be imposed on every society which fails or refuses to make out and transmit its annual account. This is a power which the registrar will doubtless use to the benefit of the public, and for the completion of his yearly reports to parliament. Short as the return before us is of completeness, it yet shows that on the 31st December, 1866, there were 173,432 members of co-operative societies, and that the money 'turned over' in the course of the year was between 4,000,000*l.* and 5,000,000*l.*—figures which indicate the growing importance and acceptance of the principle involved in these associations. A parliamentary return, running over sixty folio pages, with a few meagre totals at the end, only affords the raw material for a compilation of statistics, but fails in itself as a satisfactory exposition of the principal facts. The kingdom is broadly distinguished in character by its counties, but in the document before us no one of the counties is summarised. The reader who wishes to compare Lancashire, for instance, with Devonshire or Norfolk, must with laborious detail bring the particulars together for himself. This should not be, for if the whole kingdom is capable of presentment in a brief tabular form, surely its constituent parts are susceptible of a similar treatment. Lancashire is the birthplace and genial home of co-operation; in our county many societies flourish, though, of course, all do not bear equal fruits. Counting all, there are 144 societies, but many are small. These would occupy in tabulation more space than we should care to bestow, therefore we limit the following selection to such associations as have 300 members and upwards:—

The Principal Co-operative Societies of Lancashire, as they stood on the 31st December, 1866.

Registered Office of Society.	Number of Members, 1866.	Goods Bought in 1866.	Goods Sold in 1866.	Profits Realised in 1866.
		£	£	£
Accrington	1,510	35,138	38,297	8,544
Ashton-under-Lyne	416	7,387	7,763	703
Bacup	2,239	72,684	85,002	10,722
Blackburn, York Street	338	9,705	10,338	497
Blakeymoor	445	12,406	12,987	835
Blackley	330	8,309	9,133	693
Bolton, Bridge Street	1,718	29,399	31,530	2,816
Brickfield, near Rochdale	411	11,683	13,476	1,632
Bury, Market Street	4,100	117,395	135,175	16,191
Chorley, Market Place	969	20,050	24,153	1,425
Dalton-in-Furness	428	8,378	9,253	799
Over Darwen	1,089	34,667	37,586	2,678
Eccles	762	17,044	18,688	1,970
Healey	301	8,259	9,003	1,124
Failsworth	686	15,536	16,615	1,208
Great Harwood	318	5,576	6,387	783
Haslingden	452	9,586	11,211	1,931
Heywood	858	28,240	31,607	3,725
Hindley	473	12,578	13,547	1,195
Whitworth	520	15,310	17,231	2,200
Hulme, Medlock Street	1,710	32,642	38,505	3,576
Lancaster, New ,,	919	17,263	19,504	1,995
Littleborough	548	19,044	21,032	2,353
Manchester, Dantzic Street	31,030	174,800	175,044	2,806
,, Downing ,,	2,585	48,182	55,197	3,844
Middleton	581	13,464	15,859	1,552
Milnrow	757	2,305	26,042	3,430
Mossley	1,097	33,910	37,151	3,541
Oldham, Greenacres Hill	1,406	68,904	78,671	9,272
,, King Street	2,260	78,665	87,614	11,376
Prestwich	502	8,419	9,368	1,273
Radcliffe	605	11,775	12,896	1,389
Ramsbottom	979	21,169	23,885	3,477
Rawtenstall, Lord Street	739	18,110	21,579	3,051
,, Cawl Terrace	524	13,924	15,514	2,054
Rochdale (Equitable Pioneers)	6,246	220,238	249,122	31,931
Shaw	450	16,995	18,380	1,994
Steeps, near Rochdale	312	9,141	10,188	1,074
Todmorden	485	16,407	18,551	2,052
Tunsted	350	11,977	14,290	2,205
Waterfoot	537	12,449	14,468	1,770

"In this account there are forty societies represented. The names are not given because they appear more frequently to be distinguished by their locality than their title. 'Co-operative,' 'industrial co-operative,' 'provident,' &c., are the favourable adjectives in their designations. The objects of the respective societies in general, are for the sale of groceries, drapery, and clothing. One, with an innocent ambiguity of phrase, returns itself as engaged in 'butchery and clogging.' The table exhibits but two or three items, but they seemed best calculated to convey in a brief manner the extent of the business carried on by each store. The selected societies mustered 73,000 members, and they sold goods in the course of the year, amounting to 1,500,000*l.* and a fraction over; hence, under the last-named phase, they equalled one-third of the aggregate sales of the kingdom. The accounts are usually audited once a-quarter by members, and occasionally by non-members. In the matter of realised profits, the last column of the statement is probably an unreliable exponent for comparing one society with another, and for this reason, that the price fixed on articles over prime cost, we believe, varies. The stores may be distributed at a small advance to cover working expenses and depreciation; or, they may be sold at the market price of the place, and the members receive their advantage periodically in the shape of dividends.

"The profits are usually applied to interest on shares, dividends to members, occasionally to non-members, depreciation of stock, reserve fund, and not unfrequently to the payment of an item termed 'educational,' which we believe is not meant for schooling in the ordinary sense, but for the maintenance and supply of a reading-room—a very pleasing adjunct to some of these undertakings. The sums applied to the purpose are generally moderate, varying between 20*l.* and 50*l.* But in one or two instances they are much larger. The Oldham Society (King Street) devoted last year 217*l.* to the 'educational fund,' and the Rochdale Equitable Pioneers no less than 681*l.* to 'education.' The Rawtenstall Society gave out of their profits 53*l.* for 'library and newsroom.'

"The oldest, the most prosperous, and the type followed by other organisations —the Equitable Pioneers—deserves a few more words than we can give to the others. At the latest date officially published, these were the principal circumstances recorded. Established in 1844, it had 6,246 members on its books at the close of 1866. During the year 1,675 new members joined, and 753 old ones withdrew, hence the clear accessions over withdrawals amounted to 920 members. The shares are 1*l.* each; the total received from that source during the society's existence was 51,986*l.* The withdrawing members in 1866 took out for their share the large sum of 30,729*l.* The share capital amounted to 97,489*l.*; the loan capital was small, 418*l.*, but the interest received on loans was 76*l.* The amount paid by the society for interest during this year was 3,823*l.* The rate of interest is not stated, but at 5 per cent. this sum would pay for a loan of 76,000*l.* for twelve months. Cash paid for goods purchased was 220,238*l.*; goods sold 249,122*l.*; profit realised, 31,931*l.* The profit was thus applied:—

	£
Interest	3,823
Dividend on purchases	25,829
Education	681
Reserve fund	252
Depreciation of fixed stock	1,197
Charities	165

"The whole of the working expenses for the year, that is to say, wages, rent, rates, and taxes, and all incidental repairs, &c., was 7,795*l.*, which upon the value of the goods sold is equivalent to 3*l.* 2*s.* 6*d.* per cent. The cash in hand, that is, at the banker's, treasurer's, or with other officers, figured at the respectable amount of 25,034*l.* The assets of the society were valued at 99,989*l.*, which, for the convenience of remembering, we will call 100,000*l.*, and the total liabilities at 81*l.* Credit is neither given nor taken, and the society's accounts are subjected to a quarterly scrutiny by auditors chosen from among the members.

"The North of England Co-operative Society counts far more members than the Pioneers, namely, 31,030; but their transactions, though very considerable, are less than the Rochdale society by 70,000*l.* or more in the year.

"Of the two or three societies in Lancashire which have entered the field as co-operative manufacturers and capitalists, we have said nothing. The distributive societies whose function is to buy goods at wholesale prices, and then divide them among the members according to the wants of each individual, require but common prudence, skill, and honesty in working to obtain success. Needful as such qualities are in all business undertakings that are to be remunerative, there is something much beyond them required when workpeople contend as competitors with great capitalists. The co-operative store is a simple prudential arrangement — the co-operative factory must be a much more complex enterprise, the prudence of which in any case actual trial alone can prove. The Rochdale co-operative corn mill shows upon a sale of 202,000*l.* worth of goods, 18,000*l.* profit, but this society are general dealers also, and what they gained as millers only we cannot say. The co-operative cotton factory in the same town made sales to the extent of 108,000*l.*; the realised profits were 4,620*l.* This concern appears to be confined to spinning and manufacturing cotton.

" Within these two or three years the principle of co-operative stores has found favour with certain sections of the middle classes in London. The civil servants of the crown have established two large stores under different committees. The first was formed in the city, and the second at the west end. The city store is open to the government clerks and to any of their friends whom they may choose to nominate. The west end society reckons a more opulent class among its members than the earlier institution. Membership is strictly confined to Government employés, clergymen, and officers of the army and navy. The success of both has been great beyond all anticipation, and the naturalisation of the co-operative principle in buying and selling has been thus fairly inaugurated with a class in the social ranks above those with whom it originated. For this good lesson London must thank the Rochdale Pioneers."

IV.—*The Last Harvest.*

THE estimates of the yield of corn-cropping in England, collected by the proprietors of the *Mark Lane Express*, may be profitably collated with the agricultural returns recently issued by the Board of Trade :—

" Subjoined is the condensed substance of 550 letters, received from all parts of England relating to the cereal crops of the harvest of 1867, a tabulated statement from which was inserted in our last week's supplement, while in another part of this week's paper is an abstract of the letters taken *seriatim*, with the remarks of such of the writers as expressed their opinion further than by direct replies to the questions proposed. The following are the chief results of the inquiry :—

	Wheat.	Barley.	Oats.	Beans.	Peas.
Failure	—	—	—	—	18
Two-thirds under average	7	—	—	3	31
Half "	20	2	8	7	—
One-third "	57	27	14	19	27
One-fourth "	85	6	4	24	34
One-fifth "	42	33	2	—	—
One-sixth "	13	1	18	—	—
Under average	234	145	86	168	127
Average	81	268	280	140	142
Over average	7	30	69	9	18
One-sixth over average	—	8	—	—	—
One-fifth "	—	8	2	—	—
One-fourth "	4	—	1	3	5
One-third "	—	2	14	1	1
One-half "	—	—	8	1	2
Totals	550	522	515	375	405

" In comparing the above table with that of the previous year 1866, it will be found that in all kinds of cereal produce, except oats, the results are considerably less favourable to the last than to the previous harvest, as will be seen by the following comparative statement:—

Years.	Wheat. Average.		Barley. Average.		Oats. Average.		Beans. Average.		Peas. Average.	
	Under.	Over.	Under.	Over.	Under.	Over.	Under.	Over.	Under.	Over.
1867	452	92	214	303	132	382	221	154	237	168
'66	328	246	171	368	183	330	101	296	63	362

"From this table it appears that the number of reports of a deficient crop in 1867 exceeds those of 1866 in the following proportions, viz., wheat, 124; barley, 43; beans 120; peas, 174; while the returns of oats are in favour of the last crop to the extent of 51. As usual, most of the returns of deficiency are simply stated to be under average, without estimating or giving the probable amount; but from the general tenour of the reports and the numerous cases of much under, greatly under, very much under, we may infer that many of these ought to occupy places higher in the table, and lower in the scale of produce. There are two circumstances in favour of the past year, which so far as the interest of the growers be concerned, go to mitigate the disastrous harvest. The first is, that, with the exception of the most early districts, the crops of wheat were housed in excellent order; whereas, in the harvest of 1866, a very large proportion of the crops, particularly in the north of England, were most seriously damaged by wet weather. The second circumstance is, that the price of all kinds of grain has from the first of the season been in proportion to the deficiency, thus compensating some degree for the smallness of the yield. We may account for this by the exceptional fact that there has been a general deficiency in the harvest of 1867 throughout Europe, saving only in Hungary and some other of the Danubian provinces, which has prevented other countries from supplying us with the required amount; while of course greater competition has been created for that which could be spared from those countries which had an excess over their own consumption. Add to this, that the American market has been nearly closed against us by our prices being too low to allow a profit to the exporter, and there is no difficulty in accounting for the high prices now ruling in every part of the world. With regard to the actual deficiency, we think that the materials of the tables warrant us in estimating it fully one-fourth of an average, or 4,000,000 quarters, in the wheat crop, which is about 700,000 quarters beyond the deficiency estimated on in the crops of 1866. In this estimate, however, we include the crops of the whole United Kingdom, which, although not comprehended in the returns, are supposed to be on a par in point of produce with England. With respect to the barley crop, although on the face of the account the yield is smaller than in 1867, yet the quality is occasionally good as well as the condition; while the oat crop is, beyond all question, far superior to that of 1866, both in yield, quality, and condition, that grain having sustained as much damage as the barley from the rains in 1866. The bean crop is very deficient this season, but the condition and quality are good. The peas are in most respects inferior to the crops of 1866, the number under average exceeding the previous year by 174. It must not be lost sight of, in calculating for the future, that the wheat crop was begun upon as soon as the crops were housed, there being no stock of old wheat in the country. With a deficient produce of 4,000,000 quarters, we have to a large extent anticipated the threshing of the summer, and we have, consequently, a much smaller stock on hand than in any season since 1854. It is, therefore, probable that by next harvest we shall find ourselves as short of stock as at the last; but as we do not profess to prophesy, we shall leave the reader to draw his own conclusions from the foregoing facts."

V.—*Public Instruction in Turkey.*

Supplement to Mr. Hyde Clarke's Paper (vol. xxx, pp. 502 *et seq.*), from a communication of His Excellency Subhi Bey, Minister of Public Instruction, under date Constantinople, 26th November, 1867:—

	Schools.	Males.	Females.	Total.
Stamboul and Suburbs.				
Rushdiyeh	12	1,450	—	1,450*
Mussulman primary schools	279	13,380	7,449	21,829
Non-Mussulman „	144	16,217	—	16,217
				38,496
Normal school	1	60	—	—
Aklam de (public administration)	1	85	—	—
Civil school	1	55	—	—
School of languages for Turkish, French, Greek, and Bulgarian	1	28	—	228
	439	31,275	7,449	38,724
Roumelia and Anatolia.				
Rushdiyeh schools	108	6,380	—	6,380
Mussulman primary schools	10,229	228,637	119,005	347,642
Non-Mussulman „	2,851	98,873	10,314	111,187
	12,688	333,890	129,519	463,209
Grand total returned	—	501,930		

* These figures do not include the four special schools returned below in the same column, nor the female rushdiyeh.

VI.—*The Quarterly Tables.*

It is necessary to point out certain changes which have been introduced into these statements. The whole of the tabular matter of the English, Scotch, and Irish registration reports is retained in the shape heretofore printed, but to save space, the usual textual comments are omitted. To the table of the Note Circulation of the United Kingdom, at p. 120, a column has been added, showing the total amount of London Clearances in each week of the quarter. The tables in their present form will be continued in the future numbers of the *Journal.*

The Agricultural Statistics will not be omitted from the periodical tables, but for the present year it is deemed more convenient to print them in the June *Journal.*

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—QUARTER ENDED SEPTEMBER, 1867.

BIRTHS AND DEATHS—QUARTER ENDED DECEMBER, 1867.

A.—*Serial Table of* MARRIAGES, BIRTHS, *and* DEATHS, *returned in the Years* 1861-67, *and in the* QUARTERS *of those Years.*

Calendar YEARS, 1861-67:—*Numbers.*

Years.........	'67.	'66.	'65.	'64.	'63.	'62.	'61.
Marriages No.	—	187,519	185,474	180,387	173,510	164,030	163,706
Births........ ,,	767,997	753,188	748,069	740,275	727,417	712,684	696,406
Deaths .... ,,	471,102	500,938	490,909	495,531	473,837	436,566	435,114

QUARTERS *of each Calendar Year,* 1861-67.

(I.) MARRIAGES:—*Numbers.*

Qrs. ended last day of	'67.	'66.	'65.	'64.	'63.	'62.	'61.
March........ No.	36,380	37,576	36,807	37,988	35,528	33,953	33,274
June .... ,,	45,462	48,523	45,827	44,599	44,146	40,853	42,012
September ,,	44,003	46,196	45,852	44,675	41,932	40,600	39,884
December ,,	—	55,224	56,988	53,125	51,904	48,624	48,536

(II.) BIRTHS:—*Numbers.*

Qrs. ended last day of	'67.	'66.	'65.	'64.	'63.	'62.	'61.
March........ No.	195,455	196,737	194,130	192,947	186,341	181,990	172,938
June .... ,,	199,649	192,459	192,988	188,835	189,340	185,554	184,820
September ,,	190,255	178,982	181,941	181,015	173,439	172,709	172,033
December ,,	182,638	185,010	179,010	177,478	178,297	172,431	166,620

(III.) DEATHS:—*Numbers.*

Qrs. ended last day of	'67.	'66.	'65.	'64.	'63.	'62.	'61.
March........ No.	134,254	138,238	140,410	142,977	128,096	122,019	121,215
June .... ,,	112,523	128,692	115,892	116,880	118,121	107,392	107,558
September ,,	108,462	116,826	118,362	112,223	112,504	92,381	101,232
December ,,	115,863	117,187	121,245	123,451	115,116	114,774	105,109

Annual Rates per Cent. of PERSONS MARRIED, *and of* BIRTHS, *and* DEATHS, *during the Years* 1861-67, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1861-67:—*General Percentage Results.*

YEARS............	'67.	Mean '57-'66.	'66.	'65.	'64.	'63.	'62.	'61.
Estmtd. Popln. of England *in thousands* in middle of each Year....	21,430	—	21,210	20,991	20,772	20,554	20,336	20,119
Persons Married Per ct.	—	1·687	1·768	1·768	1·736	1·688	1·614	1·628
Births .... „	3·584	3·493	3·551	3·564	3·564	3·539	3·504	3·461
Deaths.... „	2·198	2·255	2·362	2·339	2·386	2·305	2·147	2·168

QUARTERS *of each Calendar Year,* 1861-67.

(I.) PERSONS MARRIED:—*Percentages.*

Qrs. ended last day of	'67.	Mean '57-'66.	'66.	'65.	'64.	'63.	'62.	'61.
March .... Per ct.	1·382	1·400	1·442	1·428	1·472	1·408	1·360	1·346
June........ „	1·704	1·718	1·838	1·754	1·724	1·726	1·614	1·678
Septmbr. „	1·628	1·631	1·726	1·732	1·704	1·616	1·582	1·570
Decembr. „	—	1·987	2·058	2·146	2·022	1·996	1·890	1·906

(II.) BIRTHS:—*Percentages.*

Qrs. ended last day of	'67.	Mean '57-'66.	'66.	'65.	'64.	'63.	'62.	'61.
March .... Per ct.	3·713	3·663	3·776	3·765	3·740	3·691	3·644	3·500
June........ „	3·742	3·619	3·644	3·692	3·651	3·700	3·665	3·690
Septmbr. „	3·518	3·350	3·344	3·434	3·453	3·343	3·365	3·388
Decembr. „	3·368	3·340	3·447	3·370	3·376	3·428	3·350	3·272

(III.) DEATHS:—*Percentages.*

Qrs. ended last day of	'67.	Mean '57-'66.	'66.	'65.	'64.	'63.	'62.	'61.
March .... Per ct.	2·551	2·551	2·653	2·723	2·772	2·538	2·443	2·458
June........ „	2·109	2·218	2·437	2·217	2·260	2·308	2·121	2·147
Septmbr. „	2·006	2·031	2·182	2·140	2·141	2·169	1·800	1·994
Decembr. „	2·187	2·224	2·184	2·283	2·349	2·213	2·230	2·064

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended December*, 1867.

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Mean Temperature.
			Beef.	Mutton.		In-door.	Out-door.	
	£	*s. d.*	*d. d. d.*	*d. d. d.*	*s. s. s.*			°
1865 Dec. 31	88⅛	44 10	4¼—7 5⅝	5½—8½ 6⅞	60—90 75	129,036	725,259	46·0
1866 Mar. 31	87	45 6	4½—6¾ 5⅝	5½—7¾ 6⅝	55—90 72	139,546	759,402	41·2
June 30	86⅛	46 6	4¼—7 5⅝	5½—8½ 7	60—95 77	123,657	734,189	53·0
Sept. 30	88⅜	51 -	5¼—7½ 6⅜	5½—8¼ 6¾	75—120 97	120,955	717,553	58·9
Dec. 31	89⅞	56 8	4¼—7 5⅝	5¼—7½ 6⅜	85—130 107	133,979	734,312	46·2
1867 Mar. 31	90⅞	60 7	4¼—7 5⅝	5—7½ 6¼	115—160 137	147,620	832,364	38·9
June 30	92⅛	63 11	4¼—6¾ 5½	5¼—7¼ 6¼	135—175 155	134,678	779,629	53·5
Sept. 30	94⅛	65 4	4¼—6¾ 5½	5—7 6	100—155 127	129,838	743,977	59·7
Dec. 31	94⅜	67 11	4½—6¾ 5⅝	4½—6½ 5½	110—155 132	146,237	771,230	42·5

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England in the Ten Years* 1851-60; *in the Year* 1867; *in the Autumn Quarter of* 1866; *and in the Winter, Spring, Summer, and Autumn Quarters of* 1867.

Divisions.	Average Annual Rate of Mortality to 1,000 Living in						
	Ten Years, 1851-60.	1866.	1867.				
		Autumn Quarter.	Year.	Winter Quarter.	Spring Quarter.	Summer Quarter.	Autumn Quarter.
I. London	23·63	24·38	22·98	26·65	20·38	21·27	23·61
II. South-Eastern counties	19·55	17·90	18·90	21·87	18·02	17·64	18·07
III. South Midland "	20·44	19·07	20·32	24·02	19·87	18·34	19·03
IV. Eastern counties	20·58	17·62	19·33	22·27	19·43	17·24	18·38
V. South-Western counties	20·01	18·52	19·13	23·83	19·13	15·89	17·65
VI. West Midland "	22·35	19·84	20·70	24·20	19·49	18·82	20·30
VII. North Midland "	21·10	18·89	20·31	23·44	19·92	18·63	19·25
VIII. North-Western "	25·51	26·96	25·89	29·44	24·06	23·76	26·31
IX. Yorkshire	23·09	23·28	23·64	26·58	23·45	22·65	21·89
X. Northern counties	21·99	25·27	24·73	27·23	23·83	23·19	24·67
XI. Monmouthshire and Wales	21·28	21·49	20·68	24·19	21·85	17·82	18·85

Note.—The above mortality for the *year* 1867 is the mean of the quarterly rates.

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per Cent. in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1867-65.

	Area in Statute Acres.	Population Enumerated.	Quarters ending	Annual Rate of Mortality per Cent. in each Quarter of the Years			
		1861.		1867.	Mean '57-66.	1866.	1865.
In 142 Districts, and 56 Sub-districts, comprising the *Chief Towns*........	3,287,151	10,930,841	March ..	2·732	2·738	2·967	2·883
			June	2·199	2·357	2·641	2·346
			Sept.	2·243	2·262	2·515	2·388
			Dec.	2·380	2·477	2·432	2·565
			Year	2·389	2·459	2·639	2·546
			Year	1·955	2·010	2·010	2·081
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,037,782	9,135,383	March ..	2·315	2·326	2·252	2·522
			June	1·991	2·050	2·170	2·055
			Sept.	1·696	1·750	1·755	1·824
			Dec.	1·818	1·916	1·863	1·923

Note.—The three months, January, February, March, contain 90, in leap year 91 days; the three months, April, May, June, 91 days; each of the last two quarters of the year 92 days. For this inequality a correction has been made in the calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE *and* RAINFALL *in last Autumn Quarter, in Thirteen Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1867.	Births in 13 Weeks ending 28th Dec., 1867.	Deaths in 13 Weeks ending 28th Dec., 1867.	Annual Rate to 1,000 Living during the 13 Weeks ending 28th Dec., 1867.		Mean Temperature in 13 Weeks ending 28th Dec., 1867.	Rainfall in Inches in 13 Weeks ending 28th Dec., 1867.
				Births.	Deaths.		
Total of 13 large towns....	6,187,764	55,018	39,446	35·69	25·59	43·1	7·0
London	3,082,372	27,142	18,130	35·34	23·61	43·2	4·5
Bristol (city)	165,572	1,384	1,015	33·55	24·60	44·1	7·3
Birmingham (borough)....	343,948	3,065	2,230	35·77	26·02	43·1	6·3
Liverpool (borough)	492,439	4,700	3,726	38·31	30·37	44·1	8·6
Manchester (city)	362,823	3,089	2,951	34·17	32·64	41·6	10·4
Salford (borough)	115,013	1,058	836	36·92	29·17	41·8	10·1
Sheffield (borough)	225,199	2,192	1,421	39·07	25·33	42·7	6·1
Leeds (borough)................	232,428	2,470	1,418	42·65	24·49	42·9	4·9
Hull (borough)	106,740	1,061	703	39·90	26·43	41·4	6·2
Newcastle - on - Tyne (borough)	124,960	1,170	909	37·58	29·20	42·9	5·6
Edinburgh (city)	176,081	1,617	1,176	36·86	26·81	43·5	3·8
Glasgow (city)	440,979	4,340	3,059	39·50	27·84	43·3	12·2
Dublin (city and some suburbs)	319,210	1,730	1,872	21·75	23·54	46·0	5·3

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended* 30*th September*, 1867-65; *and* BIRTHS *and* DEATHS *in Quarters ended* 31*st December*, 1867-65.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (*Persons.*)	4 MARRIAGES in Quarters ended 30th September. '67.	5 '66.	6 '65.
ENGLD. & WALES.... *Totals*	37,324,883	No. 20,066,224	No. 44,003	No. 46,196	No. 45,852
I. London	77,997	2,803,989	8,521	9,034	8,974
II. South-Eastern	4,065,935	1,847,661	3,868	3,896	3,685
III. South Midland........	3,201,290	1,295,515	2,110	2,292	2,328
IV. Eastern	3,214,099	1,142,562	1,724	1,750	1,854
V. South-Western........	4,993,660	1,835,714	3,150	3,267	3,369
VI. West Midland	3,865,332	2,436,568	4,930	5,280	5,309
VII. North Midland........	3,540,797	1,288,928	2,353	2,493	2,349
VIII. North-Western	2,000,227	2,935,540	7,709	8,073	7,646
IX. Yorkshire	3,654,636	2,015,541	4,781	5,001	5,071
X. Northern	3,492,322	1,151,372	2,436	2,527	2,736
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,421	2,583	2,531

7 DIVISIONS. (England and Wales.)	8 BIRTHS in Quarters ended 31st December. '67.	9 '66.	10 '65.	11 DEATHS in Quarters ended 31st December. '67.	12 '66.	13 '65.
ENGLD. & WALES.... *Totals*	No. 182,638	No. 185,010	No. 179,010	No. 115,863	No. 117,187	No. 121,245
I. London	27,142	27,033	26,570	18,130	18,456	18,465
II. South-Eastern	15,917	16,552	15,573	9,146	8,945	9,594
III. South Midland........	11,069	11,233	10,775	6,418	6,400	6,918
IV. Eastern	8,941	9,270	8,928	5,383	5,147	5,704
V. South-Western........	13,570	14,147	14,156	8,263	8,657	8,750
VI. West Midland	22,306	23,218	22,275	13,594	13,115	14,263
VII. North Midland........	11,153	11,266	10,860	6,502	6,340	6,856
VIII. North-Western........	28,686	28,377	27,582	21,710	21,880	23,073
IX. Yorkshire	20,301	20,436	19,533	12,028	12,644	13,324
X. Northern	12,071	12,071	11,641	8,021	8,078	7,236
XI. Monmthsh. & Wales	11,482	11,407	11,117	6,668	7,525	7,062

G.—*General Meteorological Table, Quarter ended December*, 1867.

[Abstracted from the particulars supplied to the Registrar-General by JAMES GLAISHER, ESQ., F.R.S., &c.]

1867. Months.	Temperature of Air. Mean.	Air. Diff. from Average of 96 Years.	Air. Diff. from Average of 26 Years.	Evaporation. Mean.	Evaporation. Diff. from Average of 26 Years.	Dew Point. Mean.	Dew Point. Diff. from Average of 26 Years.	Air—Daily Range. Mean.	Air—Daily Range. Diff. from Average of 26 Years.	Water of the Thames	Elastic Force of Vapour. Mean.	Elastic Force of Vapour. Diff. from Average of 26 Years.	Weight of Vapour in a Cubic Foot of Air. Mean.	Weight of Vapour in a Cubic Foot of Air. Diff. from Average of 26 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
Oct.	48·7	−1·0	−1·9	47·0	−1·6	45·2	−1·2	15·2	+0·6	50·3	·302	−·015	3·4	−0·3
Nov. ...	41·4	−1·0	−2·6	39·7	−2·0	37·5	−2·4	12·5	+0·8	43·9	·225	−·027	2·6	−0·2
Dec. ...	37·5	−1·6	−3·0	36·2	−2·8	34·4	−2·8	10·1	+0·5	37·3	·199	−·025	2·3	+0·3
Mean ...	42·5	−1·2	−2·5	41·0	−2·1	39·0	−2·1	12·6	+0·6	43·8	·242	−·022	2·8	0·3

1867. Months.	Degree of Humidity. Mean.	Degree of Humidity. Diff. from Average of 26 Years.	Reading of Barometer. Mean.	Reading of Barometer. Diff. from Average of 26 Years.	Weight of a Cubic Foot of Air. Mean.	Weight of a Cubic Foot of Air. Diff. from Average of 26 Years.	Rain. Amnt.	Rain. Diff. from Average of 52 Years.	Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass. Number of Nights it was At or below 30°.	Number of Nights it was Between 30° and 40°.	Number of Nights it was Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
Oct.	88	+ 1	29·758	+·063	542	+ 3	2·1	−0·7	255	8	12	11	21·6	53·2
Nov. ...	87	− 1	30·119	+·370	557	+10	0·4	−2·0	241	19	10	1	21·3	43·0
Dec. ...	89	+ 1	29·854	+·024	556	+ 4	2·0	+0·1	290	23	5	3	15·0	46·2
Mean ...	88	0	29·910	+·152	552	+ 6	Sum 4·5	Sum −2·6	Mean 262	Sum 50	Sum 27	Sum 15	Lowest 15·0	Highest 53·2

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

Thunderstorms occurred on the 3rd October at Llandudno; on the 4th and 7th at Liverpool; on the 8th at Aldershot, Oxford, and Grantham; on the 15th at Eastbourne; on the 17th at Halifax, Hull, and Ripon; on the 19th at Hull; and on the 27th at Grantham.

Thunder was heard but lightning was not seen on the 2nd October at Aldershot; on the 6th at Streatly Vicarage; on the 7th at Eccles; on the 8th at Cardington; on the 7th at Eccles and Stonyhurst; and on the 3rd and 10th December at Carlisle.

Lightning was seen but thunder was not heard on the 3rd October at Guernsey, Eastbourne, Marlborough College, and Oxford; on the 4th at Battersea; on the 7th at Norwich and Stonyhurst; on the 8th at Norwich; on the 17th at Sidmouth and Allenheads; and on the 27th at Knebworth. On the 2nd November at Culloden; on the 22nd at Helston; and on the 26th at Bath. On the 14th December at Culloden, and the 15th and 18th at Llandudno.

Snow fell at different places on October 3rd, 4th, 5th, 7th, and 9th. On November 16th, 20th, and 21st. On December, at all parts of the country, on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 17th, 18th, 19th, 20th, 21st, 28th, 29th, 30th, and 31st.

H.—*Special Meteorological Table, Quarter ended* 31*st December*, 1867.

1 Names of Stations.	2 Mean Pressure of Dry Air reduced to the Level of the Sea.	3 Highest Reading of the Thermometer.	4 Lowest Reading of the Thermometer.	5 Range of Temperature in the Quarter.	6 Mean Monthly Range of Temperature.	7 Mean Daily Range of Temperature.	8 *Mean Temperature of the Air.*	9 Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·838	62·5	31·0	31·5	24·0	7·2	47·4	83
Barnstaple	29·825	66·0	19·0	47·0	33·2	11·6	45·7	89
Osborne	29·830	66·8	23·2	43·6	39·1	16·9	44·9	92
Royal Observatory	29·845	64·8	21·2	43·6	34·8	12·6	42·4	88
Royston	29·860	67·3	15·1	52·2	36·0	12·6	42·6	87
Lampeter	29·884	62·0	12·6	49·4	36·2	13·1	43·2	88
Norwich	29·823	65·0	23·0	42·0	32·1	10·3	43·3	88
Derby	29·822	65·0	22·0	43·0	31·7	12·2	42·8	85
Manchester	29·843	69·5	22·0	47·5	34·1	13·0	41·6	86
Wakefield	29·834	70·0	20·0	50·0	37·1	14·5	42·7	79
Stonyhurst............	29·806	66·4	22·0	44·4	34·0	10·8	42·0	87
North Shields	29·843	63·8	26·0	37·8	28·1	9·3	42·6	85

10	11	12	13	14	15	16	17	18
	Wind.						Rain.	
Names of Stations.	Mean estimated Strength.	Relative Proportion of				Mean Amount of Cloud.	Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·5	11	5	6	9	5·8	43	8·7
Barnstaple	—	10	6	5	10	3·9	58	11·4
Osborne	0·3	11	5	6	9	6·1	31	5·2
Royal Observatory	0·4	9	4	8	10	7·1	38	4·6
Royston	—	7	3	7	14	6·8	55	4·6
Lampeter	0·6	9	5	8	9	6·8	52	13·5
Norwich	—	—	—	—	—	—	38	6·3
Derby	—	8	4	4	15	—	43	6·0
Manchester	—	4	7	11	9	8·1	50	10·4
Wakefield	1·3	6	3	7	15	6·5	39	4·7
Stonyhurst............	0·5	9	3	7	12	7·3	54	11·8
North Shields	1·6	10	3	5	13	6·1	42	4·4

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 31ST DECEMBER, 1867.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population, Estimated to the Middle of each Year, during each Quarter of the Years* 1867 *to* 1863 *inclusive.*

	1867.		1866.		1865.		1864.		1863.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	27,969	3·52	28,876	3·66	28,608	3·65	28,177	3·61	26,733	3·44
Deaths........	19,981	2·51	19,075	2·42	20,786	2·65	22,576	2·89	19,229	2·47
Marriages ..	5,332	0·66	5,627	0·71	5,407	0·69	5,333	0·68	5,126	0·66
Mean Temperature	36°·5		38°·0		35°·3		35°·7		40°·9	
2nd Quarter—										
Births	30,393	3·83	29,801	3·78	30,332	3·86	29,992	3·84	29,655	3·82
Deaths........	17,464	2·20	18,556	2·35	17,066	2·17	18,445	2·36	17,963	2·31
Marriages ..	5,602	0·70	6,019	0·76	5,698	0·72	5,710	0·73	5,594	0·71
Mean Temperature	49°·0		49°·3		51°·5		49°·9		49°·0	
3rd Quarter—										
Births	27,888	3·51	27,197	3·45	27,320	3·48	27,063	3·47	26,366	3·40
Deaths........	15,106	1·90	15,451	1·95	15,907	2·02	16,131	2·06	16,273	2·09
Marriages ..	5,047	0·63	5,089	0·64	5,335	0·68	4,993	0·64	4,900	0·62
Mean Temperature	55°·2		54°·4		57°·5		54°·5		53°·9	
4th Quarter—										
Births	27,865	3·51	27,765	3·52	26,866	3·42	27,213	3·49	26,587	3·42
Deaths........	16,473	2·07	18,191	2·30	17,072	2·17	17,151	2·19	18,016	2·32
Marriages ..	6,540	0·82	6,894	0·87	7,137	0·91	6,639	0·85	6,614	0·84
Mean Temperature	42°·8		43°·5		43°·4		42°·0		43°·6	
Year—										
Population.	3,170,769		3,153,413		3,136,057		3,118,701		3,101,345	
Births	114,115	3·59	113,639	3·60	113,126	3·60	112,445	3·60	109,341	3·52
Deaths........	68,024	2·14	71,273	2·26	70,821	2·25	74,303	2·38	71,481	2·30
Marriages ..	22,521	0·70	23,629	0·75	23,577	0·75	22,675	0·72	22,234	0·71

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending* 31*st December*, 1867, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

	Population.		Total Births.			Illegitimate Births.		
	Census, 1861.	Estimated, 1867.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,170,769	27,865	3·51	28	2,699	9·6	10·3
126 town districts	1,615475,	1,718,968	16,513	3·84	26	1,524	9·2	10·8
890 rural „	1,446,819	1,451,801	11,352	3·12	32	1,175	10·3	9·7

	Population.		Deaths.			Marriages.		
	Census, 1861.	Estimated, 1867.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,170,769	16,473	2·07	48	6,504	0·82	121
126 town districts	1,619,614	1,718,968	10,839	2·52	39	3,929	0·91	109
890 rural „	1,446,819	1,451,801	5,634	1·55	64	2,611	0·72	139

Note.—The constitution of several of the districts was altered on January 1, 1867; consequently the numbers of the population in the town and rural districts differ somewhat from those of previous years.

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending* 31*st December*, 1867.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	9·6						
Northern	5·6	Shetland	5·2	Forfar	10·7	Lanark........	8·3
		Orkney	4·7	Perth	11·1	Linlithgow .	8·3
North-Western	5·7	Caithness	7·1	Fife	7·0	Edinburgh .	9·8
North-Eastern	15·3	Sutherland....	4·6	Kinross	16·4	Haddington	10·2
		Ross and Cromarty	4·1	Clackmannan	10·2	Berwick	8·4
East Midland ..	9·8					Peebles........	13·9
West Midland.	8·2	Inverness	7·2	Stirling	9·2	Selkirk	9·0
		Nairn............	5·7	Dumbarton ..	6·7	Roxburgh ..	12·1
South-Western	8·1	Elgin	12·8	Argyll	8·7	Dumfries	16·1
South-Eastern.	9·6	Banff	14·6	Bute	5·0	Kirkcudbright ..	17·1
		Aberdeen	16·0	Renfrew........	7·4		
Southern	15·3	Kincardine....	15·4	Ayr................	7·9	Wigtown	16·3

IV.—*Divisional Table:*—MARRIAGES, BIRTHS, *and* DEATHS *Registered in the Quarter ended* 31*st December*, 1867.

1 DIVISIONS. (Scotland)	2 AREA in Statute Acres.	3 POPULATION, 1861. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
SCOTLAND .... *Totals*	19,639,377	3,062,294	6,540	27,865	16,473
I. Northern	2,261,622	130,422	240	897	404
II. North-Western........	4,739,876	167,329	264	1,186	583
III. North-Eastern	2,429,594	366,783	791	3,243	1,515
IV. East Midland	2,790,492	523,822	1,272	4,687	2,589
V. West Midland	2,693,176	242,507	431	1,851	1,215
VI. South-Western........	1,462,397	1,008,253	2,234	10,509	6,851
VII. South-Eastern	1,192,524	408,962	926	3,966	2,364
VIII. Southern	2,069,696	214,216	382	1,526	952

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 30*th September*, 1867; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 31*st December*, 1867.

COUNTRIES.	[000's omitted]. Area in Statute Acres.	[000's omitted]. Population, 1861. (*Persons.*)	Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	20,066,	44,003	2·2	182,638	9·1	115,863	5·7
Scotland	19,639,	3,062,	5,047	1·6	27,865	9·1	16,473	5·3
Ireland	20,322,	5,799,	5,536	·9	32,479	5·6	20,672	3·5
GREAT BRITAIN AND IRELAND	77,287,	28,927,	54,586	1·8	242,982	8·3	153,008	5·3

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far these numbers are the exponents of actual facts does not at present appear to be known.—ED. *S. J.*

Trade of United Kingdom, 1867-66-65.—*Distribution of* **Exports** *from United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), **Imported from, and Exported to, the following Foreign Countries, &c.** [000's omitted.]	**First Nine Months.**					
	1867.		**1866.**		**1865.**	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	19,785,	5,412,	17,211,	4,639,	15,025,	4,530
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	26,164,	25,310,	26,418,	19,913,	23,110,	21,084,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	30,813,	13,116,	32,967,	13,025,	25,814,	11,120
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,690,	5,660,	4,549,	5,811,	3,015,	6,026
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	15,390,	11,302,	15,011,	12,606,	17,806,	8,960
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	204,	224,	339,	213,	288,	234
Western Africa	1,034,	639,	866,	424,	795,	472
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	46,	84,	49,	140,	109,	88
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	629,	1,787,	548,	1,882,	1,120,	1,403
South Sea Islands	9,	20,	44,	121,	20,	37,
China, including **Hong Kong**	5,940,	6,161,	6,946,	6,632,	7,247,	4,727,
United States of America	33,032,	17,756,	38,942,	22,065,	7,691,	12,333,
Mexico and Central America	853,	625,	615,	1,125,	3,203,	1,700,
Foreign West Indies and Hayti	4,092,	2,503,	2,658,	2,835,	4,637,	2,616,
South America (Northern), New Granada, Venezuela, and Ecuador	980,	1,977,	1,481,	2,643,	1,248,	2,116,
" **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	5,826,	3,207,	4,381,	2,108,	5,236,	2,251,
" **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	6,510,	7,887,	7,875,	8,450,	6,099,	6,148,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	74,	8,	89,	11,	72,	9,
Total—Foreign Countries	155,071,	103,178,	160,926,	104,643,	122,535,	85,804,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	20,954,	17,710,	29,889,	17,023,	25,591,	15,853,
Austral. Cols.—N. So. W., Vict., and Queensld.	7,687,	4,368,	6,652,	6,498,	5,937,	6,362,
" " So. Aus., W. Aus., Tasm., and N. Zealand	3,361,	2,095,	3,128,	3,178,	29,000,	2,804,
British North America	3,531,	5,424,	3,433,	6,318,	3,952,	4,092,
" W. Indies with Btsh. Guiana & Honduras	5,163,	1,782,	5,484,	2,025,	6,259,	2,034,
Cape and Natal	1,770,	1,501,	1,316,	1,010,	1,502,	1,428,
Brt. W. Co. of Af., Ascension and St. Helena	338,	477,	404,	414,	320,	296,
Mauritius	715,	813,	1,148,	449,	911,	465,
Channel Islands	290,	354,	330,	379,	285,	579,
Total—British Possessions	43,809,	34,024,	51,784,	37,294,	47,657,	33,913,
General Total £	198,880,	137,202,	212,710,	141,937,	170,192,	119,717,

Trade of United Kingdom, 1865-61.—*Computed Real Value of the Total Exports of* **Foreign** *and* **Colonial** *Produce and Manufactures to each Foreign Country and British Possession.*

Merchandise Exported to the following Foreign Countries, &c. [000's omitted.]	1865.	1864.	1863.	1862.	1861.
I.—FOREIGN COUNTRIES.	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark, & Iceland, & Heligoland	4,457,	4,291,	3,487,	2,319,	3,617,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland and Belgium....	21,035,	20,153,	18,936,	14,515,	13,709,
Western Europe; viz., France, Portugal, (with Azores, Madeira, &c.), and Spain, (with Gibraltar and Canaries)	17,791,	16,969,	16,271,	14,015,	9,555,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	1,201,	1,584,	2,122,	1,784,	1,972,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	426,	539,	451,	585,	278,
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	50,	62,	61,	58,	41,
Western Africa	206,	170,	190,	262,	236,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	—	—	—	—	—
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	29,	29,	19,	15,	12,
South Sea Islands	—	—	—	—	—
China, including **Hong Kong**	209,	279,	209,	100,	92,
United States of America	3,943,	3,475,	4,352,	4,846,	1,961,
Mexico and Central America	88,	434,	76,	65,	73,
Foreign West Indies and Hayti	160,	200,	132,	157,	114,
South America (Northern), New Granada, Venezuela and Ecuador	60,	74,	67,	48,	21,
„ **(Pacific),** Peru, Bolivia, Chili, and Patagonia	44,	60,	70,	37,	44,
„ **(Atlantic),** Brazil, Uruguay, and Buenos Ayres	177,	157,	150,	154,	179,
Other countries (unenumerated)	33,	110,	60,	26,	26,
Total—Foreign Countries..............	49,909,	48,586,	46,653,	38,986,	31,930,
II.—BRITISH POSSESSIONS:					
British India, Ceylon, and Singapore	674,	908,	909,	791,	692,
Austral. Cols.—New South Wales and Victoria, So. Aus., W. Aus., Tasm., and N. Zea.	827,	1,069,	1,146,	903,	838,
British North America	1,013,	674,	714,	790,	466,
„ W. Indies with Btsh. Guiana & Honduras	271,	515,	433,	341,	219,
Cape and Natal	57,	111,	103,	114,	117,
Brt. W. Co. of Af., Ascension and St. Helena....	78,	87,	96,	72,	62,
Mauritius	16,	19,	38,	22,	38,
Channel Islands	139,	192,	145,	145,	155,
Other possessions	12,	9,	63,	12,	13,
Total—British Possessions	3,087,	3,584,	3,647,	3,190,	2,600,
General Total ....£	52,996,	52,170,	50,300,	42,176,	34,530,

IMPORTS.—(United Kingdom.)—Whole Years, 1867-66-65-64-63.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(Whole Years.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1867.	1866.	1865.	1864.	1863.
		£	£	£	£	£
RAW MATLS.—*Textile.*	Cotton Wool	51,998,	77,521,	66,032,	78,204,	56,278,
	Wool (Sheep's) ..	16,461,	17,959,	15,367,	15,998,	12,290,
	Silk	16,128,	15,896,	18,135,	12,940,	15,248,
	Flax	4,180,	4,469,	5,370,	5,323,	4,271,
	Hemp	3,080,	3,215,	3,531,	3,976,	3,451,
	Indigo	2,422,	2,208,	2,004,	2,248,	2,398,
		94,269,	121,268,	110,439,	118,689,	93,936,
" " *Various.*	Hides	3,070,	3,842,	3,044,	3,132,	3,217,
	Oils	4,086,	4,482,	4,311,	3,390,	4,075,
	Metals	4,627,	4,953,	5,185,	4,504,	4,087,
	Tallow	2,419,	3,009,	3,125,	2,077,	2,439,
	Timber...............	9,322,	10,459,	11,501,	10,946,	10,754,
		23,524,	26,245,	27,166,	24,049,	24,572,
" " *Agrcltl.*	Guano	2,109,	1,448,	2,676,	1,463,	2,659,
	Seeds	3,260,	3,375,	4,983,	3,947,	3,372,
		5,369,	4,823,	6,659,	5,410,	6,031,
TROPICAL &c., PRODUCE.	Tea	10,068,	11,130,	10,004,	9,439,	10,666,
	Coffee	4,362,	4,088,	4,604,	3,616,	4,155,
	Sugar & Molasses	13,091,	12,204,	13,002,	16,458,	12,367,
	Tobacco	2,380,	2,627,	3,250,	3,361,	3,017,
	Rice	2,026,	1,539,	1,331,	1,809,	1,866,
	Fruits	1,474,	1,267,	1,371,	1,172,	1,562,
	Wines	4,835,	4,733,	3,914,	5,003,	4,497,
	Spirits	2,070,	2,101,	1,508,	1,990,	1,706,
		40,306,	39,689,	39,024,	42,848,	39,836,
FOOD	Grain and Meal.	41,084,	29,802,	20,643,	19,709,	25,886,
	Provisions	9,690,	10,463,	10,295,	9,740,	8,789,
		50,774,	40,265,	30,938,	29,449,	34,675,
Remainder of Enumerated Articles		6,620,	6,424,	5,525,	5,612,	4,776,
TOTAL ENUMERATED IMPORTS		220,862,	238,714,	219,751,	226,057,	203,826,
Add for UNENUMERATED IMPORTS (say)		54,215,	59,678,	54,937,	56,511,	45,154,
TOTAL IMPORTS		275,077,	298,392,	274,688,	282,568,	248,980,

EXPORTS.—(United Kingdom.)—Whole Years, 1867-66-65-64-63.—*Declared Real Value, at Port of Shipment, of Articles of* British *and* Irish *Produce and Manufactures Exported from United Kingdom.*

(Whole Years.) [000's omitted.] British Produce, &c., Exported.		1867.	1866.	1865.	1864.	1863.
		£	£	£	£	£
Manfrs.—*Textile.*	Cotton Manufactures ..	55,973,	60,865,	46,904,	45,760,	39,424,
	„ Yarn	14,871,	13,700,	10,351,	9,096,	8,020,
	Woollen Manufactures	20,134,	21,726,	20,102,	18,566,	15,519,
	„ Yarn	5,822,	4,734,	5,424,	5,422,	5,065,
	Silk Manufactures........	1,603,	1,698,	1,884,	2,018,	1,959,
	„ Yarn	179,	248,	294,	297,	270,
	Linen Manufactures	7,473,	9,576,	9,155,	8,158,	6,510,
	„ Yarn	2,454,	2,380,	2,505,	3,010,	2,536,
		108,509,	114,927,	96,619,	92,327,	79,303,
Sewed.	Apparel	2,208,	2,877,	2,640,	2,584,	2,808,
	Haberdy. and Mllnry.	4,438,	5,403,	5,014,	4,787,	4,362,
		6,646,	8,280,	7,654,	7,371,	7,170,
Metals	Hardware	3,934,	4,378,	4,334,	4,159,	3,827,
	Machinery....................	4,964,	4,749,	5,214,	4,854,	4,365,
	Iron	15,127,	14,829,	13,451,	13,214,	13,111,
	Copper and Brass........	3,273,	2,831,	3,166,	3,911,	4,233,
	Lead and Tin	3,318,	3,169,	2,847,	2,786,	2,863,
	Coals and Culm	5,400,	5,084,	4,432,	4,162,	3,708,
		36,016,	35,040,	33,444,	33,086,	32,107,
Ceramic Manufcts.	Earthenware and Glass	2,435,	2,454,	2,186,	2,179,	2,090,
Indigenous Mnfrs.	Beer and Ale................	1,910,	2,056,	2,060,	1,823,	1,777,
	Butter	266,	361,	334,	328,	472,
	Cheese	128,	164,	111,	149,	156,
	Candles	183,	222,	109,	142,	190,
	Salt	451,	378,	276,	281,	287,
	Spirits	163,	151,	245,	503,	454,
	Soda	1,615,	1,611,	1,125,	917,	868,
		4,716,	4,943,	4,260,	4,142,	4,204,
Various Manufcts.	Books, Printed	613,	602,	517,	466,	457,
	Furniture	200,	237,	290,	259,	302,
	Leather Manufactures	1,858,	2,043,	2,462,	2,404,	2,318,
	Soap	289,	241,	184,	231,	256,
	Plate and Watches	417,	413,	404,	427,	463,
	Stationery	378,	389,	403,	354,	345,
		3,755,	3,925,	4,260,	4,141,	4,141,
Remainder of Enumerated Articles		10,542,	10,664,	9,703,	9,648,	8,669,
Unenumerated Articles.........		8,565,	8,595,	7,736,	7,542,	8,805,
Total Exports.....................		181,184,	188,828,	165,862,	160,436,	146,489,

SHIPPING.—Foreign Trade.—(United Kingdom.)—Years, 1867-66-65-64.— *Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(Whole Years.)	1867.			1866.		1865.		1864.	
Entered:—	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Vessels belonging to—	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	522	188,	360	475	172,	522	178,	683	237,
Sweden	1,151	213,	185	1,126	211,	1,023	188,	1,233	201,
Norway	4,086	979,	240	3,903	939,	3,676	875,	3,987	869,
Denmark	2,159	255,	118	2,261	244,	2,125	226,	2,731	271,
Prussia and Ger. Sts.	3,147	622,	198	4,141	1,018,	3,959	924,	2,379	600,
Holland and Belgium	2,368	587,	248	2,031	282,	2,080	286,	1,849	262,
France	2,617	238,	91	3,067	282,	3,305	301,	2,523	203,
Spain and Portugal	485	159,	328	396	124,	419	127,	430	130,
Italy & other Eupn. Sts.	871	284,	326	1,185	354,	1,154	331,	885	254,
United States	439	455,	1,036	408	431,	343	368,	429	457,
All other States	9	5,	555	14	5,	23	7,	17	6,
	17,854	3,985,	223	19,007	4,062,	18,629	3,806,	17,146	3,490,
United Kingdm. & Depds.	27,050	9,355,	346	27,382	9,214,	25,881	8,358,	24,962	7,812,
Totals Entered	44,904	13,340,	297	46,389	13,276,	44,510	12,164,	42,108	11,302,
Cleared:—									
Russia	460	174,	378	425	160,	444	155,	600	220,
Sweden	1,105	192,	174	1,068	196,	927	156,	1,161	186,
Norway	2,315	472,	204	2,195	442,	1,995	379,	2,398	433,
Denmark	2,468	282,	115	2,367	256,	2,399	251,	2,924	289,
Prussia and Ger. Sts.	4,630	811,	173	5,391	1,252,	5,382	1,093,	3,422	730,
Holland and Belgium	2,865	776,	271	2,043	329,	2,258	352,	1,831	287,
France	4,485	501,	112	4,231	454,	4,128	431,	4,547	454,
Spain and Portugal	467	158,	338	376	121,	415	127,	436	136,
Italy & other Eupn. Sts.	1,076	377,	350	1,317	422,	1,321	421,	1,242	374,
United States	517	515,	996	507	514,	394	397,	434	459,
All other States	13	3,	131	24	9,	38	9,	31	11,
	20,401	4,261,	208	19,944	4,055,	19,701	3,771,	19,026	3,579,
United Kingdm. & Depds.	31,053	10,586,	211	29,764	9,952,	28,480	9,046,	28,229	8,590,
Totals Cleared	51,454	14,847,	281	49,708	14,007,	48,181	12,817,	47,255	12,169,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the* Whole Years, 1867-66-65.

[000's omitted.]

(Whole Years.)	1867.		1866.		1865.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	5,802,	—	6,840,	1,	5,051,	—
So. Amca. and W. Indies	3,424,	5,105,	2,169,	4,470,	2,444,	4,929,
United States and Cal.	5,026,	1,472,	8,412,	1,833,	4,304,	230,
	14,252,	6,577,	17,421,	6,304,	11,799,	5,159,
France	387,	1,001,	2,843,	2,498,	308,	854,
Hanse Towns, Holl. & Belg.	87,	194,	770,	870,	130,	698,
Prtgl., Spain, and Gbrltr.	347,	111,	612,	152,	810,	108,
Mlta., Trky., and Egypt	146,	67,	260,	80,	320,	1,
China	—	—	—	—	—	—
West Coast of Africa	146,	3,	120,	19,	112,	20,
All other Countries....	435,	67,	1,484,	854,	1,006,	136,
Totals Imported ...	15,800,	8,020,	23,510,	10,777,	14,485,	6,976,
Exported to:—						
France	6,034,	2,190,	8,465,	2,090,	4,263,	700,
Hanse Towns, Holl. & Belg.	308,	3,345,	1,078,	3,137,	823,	2,006,
Prtgl., Spain, and Gbrltr.	354,	7,	162,	107,	1,491,	4,
	6,696,	5,542,	9,700,	5,334,	6,077,	2,710,
Ind. and China (viâ Egypt)	242,	647,	458,	2,538,	580,	3,808,
Danish West Indies	—	—	—	—	—	—
United States	63,	—	1,015,	—	61,	5,
South Africa	71,	—	5,	—	19,	—
Mauritius	—	—	—	—	—	—
Brazil	306,	95,	945,	89,	1,271,	105,
All other Countries....	511,	153,	619,	967,	485,	90,
Totals Exported....	7,889,	6,437,	12,742,	8,928,	8,493,	6,718,
Excess of *Imports*	7,911,	1,583,	10,768,	1,849,	5,992,	528,
„ Exports	—	—	—	—	—	—

REVENUE.—(United Kingdom.)—31st December, 1867-66-65-64.

Net Produce in Years *and* Quarters *ended* 31*st* Dec., 1867-66-65-64.

[000's omitted.]

QUARTERS, ended 31st Dec.	1867.	1866.	1867.		Corresponding Quarters.	
			Less.	More.	1865.	1864.
	£	£	£	£	£	£
Customs	6,102,	5,964,	—	138,	5,670,	5,932,
Excise	5,092,	5,471,	379,	—	5,110,	5,000,
Stamps	2,296,	2,308,	12,	—	2,373,	2,228,
Taxes	1,317,	1,358,	41,	—	1,317,	1,294,
Post Office	1,180,	1,140,	—	40,	1,130,	1,090,
	15,987,	16,241,	432,	178,	15,600,	15,539,
Property Tax	885,	1,314,	429,	—	1,451,	1,580,
	16,872,	17,555,	861,	178,	17,051,	17,119,
Crown Lands	100,	95,	—	5,	90,	88,
Miscellaneous	553,	682,	128,	—	866,	863,
Totals	17,525,	18,332,	989,	183,	18,007,	18,070,
			Net Decr. £806,055			

YEARS, ended 31st Dec.	1867.	1866.	1867.		Corresponding Years.	
			Less.	More.	1865.	1864.
	£	£	£	£	£	£
Customs	22,630,	21,915,	—	715,	21,707,	22,535,
Excise	19,955,	20,616,	661,	—	19,649,	19,348,
Stamps	9,597,	9,291,	—	306,	9,636,	9,468,
Taxes	3,484,	3,463,	—	21,	3,364,	3,261,
Post Office	4,630,	4,375,	—	255,	4,250,	4,060,
	60,296,	59,660,	661,	1,297,	58,606,	58,667,
Property Tax	5,266,	5,458,	192,	—	7,603,	7,999,
	65,562,	65,118,	853,	1,297,	66,209,	66,666,
Crown Lands	337,	327,	—	10,	314,	307,
Miscellaneous	2,764,	3,340,	576,	—	2,673,	3,152,
Totals	68,663,	68,785,	1,429,	1,307,	69,196,	70,125,
			Net Decr. £122,146			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 31ST DEC., 1867:—

An Account showing the REVENUE *and other* RECEIPTS *of the* QUARTER *ended* 31*st December,* 1867; *the* APPLICATION *of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the *Consolidated Fund* for the Quarter ended 30th September, 1867, viz.:—		£
Great Britain	—	
Ireland	£228,270	
		228,270
Income received, as shown in Account I		17,525,980
Amount raised on Account of Fortifications, &c., per Act 28th and 29th Victoria, cap. 61		150,000
Amount raised by the issue of Exchequer Bonds, per Act 30th and 31st Victoria, cap. 31		700,0000
Amount received in repayment of Advances for Public Works, &c.		439,106
Ditto, for New Courts of Justice		145,000
Ditto, for Greenwich Hospital		115,445
		£19,298,801
Balance, being the Deficiency on 30th December, 1867, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends and other charges payable in the Quarter to 31st March, 1868		4,088,926
		£23,387,727

Paid:—

Deficiency of the Income of the Consolidated Fund in Great Britain in the Quarter to 30th September, 1867, for the Charge of the Consolidated Fund in Great Britain for that Quarter (as shown in preceding account)	£3,010,279	£
Less amount of Sinking Fund applied in repayment of Advances to meet the said deficiency	672,681	
		2,337,598
Amount applied out of the Income to *Supply Services*		11,677,246
" advanced for New Courts of Justice		55,000
" " for Greenwich Hospital		15,445
Charge of the *Consolidated Fund* for the Quarter ended 31st December, 1867, viz.:—		
Interest of the Permanent Debt	£6,088,971	
Terminable Debt	947,939	
Principal of Exchequer Bills	100	
Interest of "	43,081	
" Advances on Account of Deficiency	—	
The Civil List	101,269	
Other Charges on Consolidated Fund	756,848	
Advances for Public Works, &c.	236,052	
Sinking Fund	228,957	
		8,403,217
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st December, 1867		899,221
		£23,387,727

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *Fourth Quarter of* 1867.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on a Saturday, 1867.	Weekly Average. (Per Impl. Quarter.) Wheat.		Barley.		Oats.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
Oct. 5	63	5	40	3	25	9
" 12	64	10	40	5	25	3
" 19	67	6	41	8	25	10
" 26	70	5	42	9	26	-
Average for October	66	6	41	3	25	8
Nov. 2	69	11	43	6	26	4
" 9	70	1	43	-	26	1
" 16	70	1	42	7	26	1
" 23	68	11	41	5	25	8
" 30	68	5	40	5	25	9
Average for November	69	5	42	2	25	11
Dec. 7	68	1	40	2	25	9
" 14	67	3	40	8	25	5
" 21	66	9	41	2	24	4
" 28	67	4	41	9	25	3
Average for December	67	4	40	11	25	2
Average for the quarter	67	11	41	6	25	7
Average for the year	64	5	40	-	26	-

RAILWAYS.—PRICES, *October—December;—and* TRAFFIC, *January—December,* 1867.

[Abstract from "Herepath's Journal" and the "Times."]

Total Capital Ex-pended Mlns.	Railway.	For the (£100). Price on 2nd Dec.	1st Nov.	1st Oct.	Miles Open. '67.	'66.	Total Traffic. 52 Weeks. (000's omitted.) '67.	'66.	Traffic pr. Mile pr. Wk. 52 Weeks. '67.	'66.	Dividends per Cent. for Half Years. 30 June, '67.		31 Dec. '66.		30 Jun. '66.	
£					No.	No.	£	£	£	£	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
56,2	Lond. & N. Westn.	114¼	113¾	114¾	1,333	1,321	6,371,	6,282,	93	93	52	6	72	6	60	–
49,2	Great Western	45¼	45¾	48¾	1,358	1,311	—	—	57	57	12	6	20	–	20	–
20,5	" Northern ...	107	109	112	487	422	2,064,	1,994,	80	83	45	–	87	6	50	–
28,1	" Eastern	31	32½	32½	709	709	—	—	55	53	Nil		Nil		Nil	
16,8	Brighton	53	53	55	336	314	1,243,	1,169,	77	73	"		65	–	40	–
19,9	South-Eastern	68	67½	69¾	330	330	—	—	89	84	20	–	45	–	28	9
16,5	" Western ...	79	83	84	503	503	—	—	54	53	37	6	55	–	40	–
207,2		71	72	75	5,056	4,910	—	—	72	71	23	11	49	3	34	1
30,7	Midland	112½	117¾	122¼	761	688	2,826,	2,666,	81	78	55	–	70	–	60	–
22,5	Lancsh. and York.	123½	127½	128	403	403	2,449,	2,358,	123	119	65	–	62	6	67	6
15,3	Sheffield and Man.	48	48½	50½	246	246	1,097,	1,083,	92	94	10	–	35	–	20	–
39,0	North-Eastern	101	102	105	1,242	1,221	3,770,	3,677,	60	61	50	–	65	–	55	–
107,5		98	99	101	2,652	2,558	10,142,	9,784,	89	88	45	–	58	1	48	1
21,2	Caledonian	74½	88	106	629	614	1,770,	1,762,	57	59	52	6	75	–	72	6
6,1	Gt. S. & Wn. Irlnd.	96	97	96	419	419	—	—	—	—	50	–	50	–	50	–
342,0	*Gen. aver.*	81	84	86½	8,756	8,501	—	—	76	76	34	7	54	–	42	7

Consols.—Money Prices, 2*nd Dec.* 94¾ to ⅞.—1*st Nov.*, 94⅜ to ½.—1*st Oct*, 94⅜ to ½.

Exchequer Bills.—2*nd Dec.*, 28*s.* to 30*s.* pm.—1*st Nov.*, 27*s.* to 30*s.* pm.—1*st Oct.*, 25*s.* to 30*s.* pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* FOURTH QUARTER (*Oct.—Dec.*) *of* 1867.

[0,000's omitted.]

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.				
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
£ Mlns.	1867.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1867. Per ann.
38,49	Oct. 2 ...	11,01	3,98	22,50	24,87	25 July 2 p. ct.
37,99	" 9	11,01	3,98	22,99	24,53	
37,13	" 16	11,01	3,98	22,13	24,99	
36,68	" 23	11,01	3,98	21,68	24,76	
36,57	" 30	11,01	3,98	21,57	24,66	
36,21	Nov. 6 ...	11,01	3,98	21,22	24,60	
36,15	" 13 ...	11,01	3,98	21,15	24,15	
36,09	" 20	11,01	3,98	21,09	23,90	
35,94	" 27	11,01	3,98	20,94	23,55	
35,60	Dec. 4	11,01	3,98	20,60	23,84	
35,56	" 11	11,01	3,98	20,56	23,40	
35,78	" 18	11,01	3,98	20,79	22,88	
35,83	" 24 ...	11,01	3,98	20,84	22,36	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1867.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,67	7,52	18,43	,59	Oct. 2	12,89	17,25	13,62	,99	44,75
14,55	3,67	7,56	18,30	,55	" 9	12,89	17,10	13,46	1,12	44,64
14,55	3,06	4,46	20,43	,60	" 16	12,89	16,95	12,14	1,13	43,11
14,55	3,07	4,41	20,07	,61	" 23	12,89	16,81	11,92	1,10	42,72
14,55	3,07	4,92	19,58	,64	" 30	12,89	16,83	11,91	1,13	42,76
14,55	3,06	5,40	18,75	,64	Nov. 6	12,89	16,79	11,61	1,12	42,40
14,55	3,07	5,14	18,69	,63	" 13	12,32	16,68	12,00	1,09	42,09
14,55	3,07	5,05	19,05	,61	" 20	12,32	16,68	12,19	1,15	42,34
14,55	3,07	5,04	19,23	,55	" 27	12,32	16,63	12,39	1,12	42,45
14,55	3,04	5,33	18,51	,55	Dec. 4	12,32	16,79	11,76	1,11	41,98
14,55	3,04	7,78	18,68	,55	" 11	12,32	17,03	12,16	1,10	42,61
14,55	3,04	7,15	19,00	,55	" 18	13,02	17,22	12,90	1,15	44,29
14,55	3,05	7,18	18,77	,57	" 24	13,02	17,52	12,47	1,10	44,11

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* FOURTH QUARTER *(October—December) of* 1867; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

ENGLAND AND WALES.					SCOTLAND.				IRELAND.		
DATES.	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 4,08).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,77).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,75).	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6,35).
1867.	£	£	£	£	1867.	£	£	£	£	£	£
Oct. 5	65,47	2,88	2,41	5,29							
„ 12	61,25	2,96	2,45	5,41	Oct. 12	1,69	2,89	4,58	3,06	2,80	5,86
„ 19	68,25	2,99	2,46	5,44							
„ 26	58,62	2,96	2,44	5,40							
Nov. 2	60,48	2,96	2,40	5,36							
„ 9	59,49	2,95	2,37	5,32	Nov. 9	1,77	2,97	4,74	3,33	3,21	6,54
„ 16	61,07	2,90	2,36	5,27							
„ 23	65,82	2,88	2,35	5,23							
„ 30	48,62	2,84	2,32	5,16							
Dec. 7	71,20	2,80	2,29	5,09	Dec. 7	1,85	3,20	5,05	3,21	3,21	6,42
„ 14	53,04	2,76	2,26	5,03							
„ 21	70,41	2,75	2,25	5,00							
„ 28	47,74	2,75	2,24	5,99							

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON—*with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Paris.				Hamburg.				Calcutta.				
DATES.	London on Paris. 3 m.d.	Bullion as arbitrated. Agnst. Engd.	Bullion as arbitrated. For Engd.	Prem. or Dis. on Gold per mille.	London on Hambg. 3 m. d.	Bullion as arbitrated. Agnst. Engd.	Bullion as arbitrated. For Engd.	New York. 60 d. s.	India Council 60 d.s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. s.	Sydney. 30 d. s.	Standard *Silver* in bars in London. pr. oz.
1867.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	*d.*	*d.*	*d.*	pr. ct.	*d.*
Oct. 5 ..	25·35	—	—	par.	13·10½	—	—	109¼	23⅜	23½	52¼	1½	60⅝
„ 19 ..	·30	·1	—	„	„ ¼	—	—	„	„	„ ⅜	„ ¾	„	„
Nov. 2 ..	·37½	„	—	„	„ ½	—	—	„	„ ⅛	„ ½	„ ¾	„	„ ½
„ 16 ..	·35	„	—	„	„ ¼	—	—	109	„	„	„	„	„ ⅝
Dec. 7 ..	·32½	·2	—	„	·9¾	—	—	„ ½	„ ¼	„	„ ½	1	„ ½
„ 21 ..	·35	·1	—	„	·10	—	—	110	„	„ ¼	52	1½	„ ⅝

Vol. XXXI.] [Part II.

JOURNAL OF THE STATISTICAL SOCIETY,

JUNE, 1868.

REPORT *of the* COUNCIL *for the* FINANCIAL YEAR *ended* 31*st December*, 1867, *and for the* SESSIONAL YEAR *ended* 15*th March*, 1868, *presented at the* THIRTY-FOURTH ANNIVERSARY MEETING *of the* STATISTICAL SOCIETY, *held at the Society's Rooms*, 12, *St. James's Square, on Monday*, 16*th March*, 1868; *with the* PROCEEDINGS *of that Meeting.*

DR. WILLIAM FARR, F.R.S., *in the Chair.*

THE Council have now the pleasure of reporting to the Fellows the transactions of the Session 1867-68, the *thirty-fourth* year of the Society's career.

The alterations which have taken place in the Fellowship in the past and the previous sessional year were these:—

	1867-68.	1866-67.
Number of Fellows on 1st of March	372	366
Life Members included in that number	63	64
Members lost during the year by death, withdrawal, or default	22	21
New Members elected	28	18

The financial incidents of the years ended with December, 1867 and 1866, are briefly compared hereunder:—

	Past Year.	Previous Year.
	£	£
Balance at beginning of year	199	302
Receipts from all sources during year	878	754
Balance in cash at end of year	146	199
Surplus of assets over liabilities at end of year	1,822	1,878

Eleven papers have been read during the past Session. The variety and interest of the topics thus brought under the notice of the Fellows and Visitors assembled at our monthly meetings, will be best represented by a simple statement of the subjects treated in each communication, with the author's name.

PAPERS READ DURING THE THIRTY-FOURTH SESSION.

March 19,	1867.—	*Mr. W. L. Sargant.*—On the Progress of Elementary Education.
April 16,	„	*Dr. Guy, F.R.S.*—On the Mortality of London Hospitals: and Incidentally on the Deaths in the Prisons and other Public Institutions of the Metropolis.
May 21,	„	*Mr. J. T. Hammick.*—On the Judicial Statistics of England and Wales, with Special Reference to the Recent Returns relating to Crime.
June 18,	„	*Mr. W. J. Bovill.*—On the Statistics of Civil Procedure in English Courts of Law.
„	„	*Mr. W. Thomas Newmarch.*—On Austrian Statistics.
Nov. 19,	„	*Mr. Hyde Clarke.*—On Public Instruction in Turkey.
Dec. 17,	„	*Mr. James Heywood, M.A., F.R.S.*—On the Form of Government and Educational System of the University of Cambridge.
„	„	*Mr. Samuel Brown.*—Report on the Proceedings of the International Statistical Congress at Florence.
Jan. 21,	1868.—	*Mr. R. Dudley Baxter, M.A.*—On National Income. [This paper did not appear in the *Journal*, but has been published in a separate form by its author.]
Feb. 18,	„	*Mr. Hamilton.*—On Trade with the Coloured Races of Africa.
„	„	*Major-General Balfour, C.B.*—On English and French Budgets.

A reference to the record of the number of persons who attended the ordinary meetings of the past Session, will show that the interest felt in the proceedings of this Society is continually increasing.

The thirty-seventh meeting of the British Association for the Promotion of Science was held at Dundee, in September last. In a previous number of the *Journal* of the Society, the papers which on that occasion were read and discussed before the Section devoted to "Economic Science and Statistics," are set forth in the usual form.

The sixth International Statistical Congress was held at Florence last year. A report of its proceedings has been drawn up, and was read before this Society by Mr. Samuel Brown. This paper has already appeared in the *Journal*, and communicates to our Fellows a full account of the business transacted at that interesting gathering.

The Council have to express their regret at having to record the loss of an old and valued coadjutor, Sir Charles Lemon, for many years one of the representatives in Parliament for the county of Cornwall, and who was also an active member of the first Council of this Society. From the date of its foundation until his demise, a few weeks back, he took a deep interest in all its affairs, and never ceased to hold some important position on the management. During the years 1836-37, and 1837-38, he was its President, and from an early period has been one of the Trustees.

Sir Charles Lemon, in the early years of the Society's history, contributed to its transactions two papers; one upon the "Statistics "of the Copper Mines of Cornwall," and another upon the agricultural produce of that county. Having reference to the time when they were written, before the existence of the means now at our command for investigating economic questions by statistical methods, they were communications of much value and interest. The first essay indeed has long been out of print, and that circumstance is some indication of the esteem with which it was at the time regarded by the public. Both contain many valuable data, and exhibit early landmarks by which statisticians, travelling over the same fields of research, may be able in future to measure the prosperity or the decline of Cornish industry in two of its greatest staples.

They have also to notice the death of the Right Honourable Baron Wensleydale, who had been one of the Fellows of the Society from a very early period. The distinction of this very eminent judge, though not leading to any prominence in the special subject of this Society, was so well established in the cognate subjects of law and legislation as to lead the Council to record his loss among those which the Society cannot fail to recognise as a matter of regret.

Among its Foreign Honorary Members the Society last year lost an ardent cultivator of statistical knowledge in the person of M. Guerry. Holding no official position, he successfully brought before the world, by his own labour and at his own expense, more than one elaborate and costly work on the comparative statistics of French and English crime. The book, illustrated by a large number of well-executed maps, which he placed before Section F of the British Association at Bath, might well have been considered munificent had it been issued under the auspices and at the expense of the Government of either country, instead of owing its existence solely to the resources of a private gentleman.

Council and Officers for 1868-69.

President.

THE RIGHT HONOURABLE W. E. GLADSTONE, M.P.

Council.

H. W. Acland, M.D., F.R.S.
Charles Babbage, M.A., F.R.S.
Walter Bagehot, M.A.
Major-General Balfour, C.B.
Thomas Graham Balfour, M.D., F.R.S.
R. Dudley Baxter, M.A.
Right Hon. Lord Belper.
Sir John P. Boileau, Bart., F.R.S.
Samuel Brown.
William Camps, M.D.
Hyde Clarke, D.C.L.
Leonard Henry Courtney.
William Farr, M.D., D.C.L., F.R.S.
William Augustus Guy, M.B., F.R.S.
James Thomas Hammick.
Frederick Hendriks.
James Heywood, M.A., F.R.S.
William Barwick Hodge.
Right Hon. Lord Houghton.
Francis Jourdan.
John Lambert.
Professor Leone Levi.
Sir John Lubbock, Bart., F.R.S.
William Golden Lumley, LL.M.
Sir James Ranald Martin, C.B., F.R.S.
William Newmarch, F.R.S.
Frederick Purdy.
Professor J. E. Thorold Rogers, M.A.
Alderman Salomans, M.P.
Colonel W. H. Sykes, M.P., F.R.S.
Professor Jacob Waley, M.A.

The names of the New Members of the Council are printed in Italics.

Treasurer.

James Thomas Hammick.

Honorary Secretaries.

William Augustus Guy, M.B., F.R.S. | William Golden Lumley, LL.M.
Frederick Purdy.

A vote of thanks to the President, Council, and Officers, for their services during the past year, was carried unanimously.

A vote of thanks to the Chair terminated the proceedings.

(I.)—RECEIPTS *and* PAYMENTS *of the* STATISTICAL SOCIETY *for the* YEAR 1867.

RECEIPTS.

				£	s.	d.
Balance in Bank, 31st December, 1866	£193	19	2			
Balance of Petty Cash	-	3	11½			
Balance of Advertisement Cash ...	4	12	-			
				198	15	1½
1867.						
Dividends on Consols				32	9	-
Subscriptions, viz.:—						
16 Arrears	£33	12	-			
269 for 1867	564	18	-			
2 " '68	4	4	-			
				602	14	-
1 Composition				21	-	-
Journal Sales	£105	12	6			
" Advertisements	16	13	9			
				122	6	3
				£977	4	4½

PAYMENTS.

				£	s.	d.
Rent of Rooms				100	-	-
Salaries				177	10	-
Journal, Printing ...	£359	4	9			
" Index.........	5	5	-			
				364	9	9
Advertising				26	7	6
Ordinary Meeting Expenses, viz.:						
Refreshments	£7	7	6			
Diagrams	12	1	-			
Attendance	7	6	-			
Other Expenses	4	5	-			
				30	19	6
Library (Books, Binding, &c.)......				34	7	11½
Stationery and Sundry Printing				22	13	1
Postages				24	1	1
Fire and Light				11	9	4
Furniture and Repairs				10	16	8
Incidental Expenses				28	8	2
Balance in Bank, 31st December, 1867	£131	19	9			
Balance of Petty Cash	10	17	1			
Balance of Advertisement Cash ...	3	4	6			
				146	1	4
				£977	4	4½

(II.)—BALANCE SHEET *of* ASSETS *and* LIABILITIES *on* 31*st* DECEMBER, 1867.

LIABILITIES.

	£	s.	d.	£	s.	d.
Printing *Journal* for December (say)......	70	-	-			
Making Index to above	5	5	-			
				75	5	-
Miscellaneous Printing (say)	5	-	-			
Stationery....................	11	10	-			
Miscellaneous	5	-	-			
				21	10	-
Balance in favour of Society ...				1,821	18	5
				£1,918	13	5

ASSETS.

				£	s.	d.
Cash Balance				146	1	4
Investments, viz.:—						
New 3 per Cents. (£771 4*s.* 8*d.*) ...	£742	12	1			
3 per Cent. Consols (£328 15*s.* 4*d.*)	300	-	-			
				1,042	12	1
Property (Estimated Value):—						
Books in Library	£400					
Journals in Stock	200					
Furniture	100					
				700	-	-
Arrears recoverable (say)				30	-	-
				£1,918	13	5

"*Auditors' Report for* 1867.

"STATISTICAL SOCIETY,
"12, ST. JAMES'S SQUARE, S.W.,
"*London, 6th February*, 1868.

"The Auditors appointed to examine the Accounts of the Statistical Society for the year 1867, herewith

"REPORT :—

"That they have carefully compared the Entries in the Books with the several *Vouchers* for the same, from the 1st January to the 31st December, 1867, and find them correct, showing the *Receipts* (including a Balance of 198*l.* 15*s.* 1½*d.* from 1866) to have been 977*l.* 4*s.* 4½*d.*, and the *Payments* 831*l.* 3*s.* -½*d.*, leaving a Balance in favour of the Society of 146*l.* 1*s.* 4*d.*

"They have also had laid before them, an estimate of the *Assets* and *Liabilities* of the Society, the *former* amounting to 1,918*l.* 13*s.* 5*d.*, and the *latter* to 96*l.* 15*s.* -*d.*,—showing a Balance in favour of the Society of 1,821*l.* 18*s.* 5*d.*

"They further find that at the end of the year 1866, the number of Fellows was 364, of whom 21 Died or Withdrew; and 28 new Fellows were elected during the year, leaving on the list 371 Fellows on the 31st December, 1867.

(Signed) "FRAS. JOURDAN,
"EDWD. T. BLAKELY,
"HENRY G. BOHN,
} *Auditors.*"

On the AGRICULTURAL STATISTICS *of the* UNITED KINGDOM.

By JAMES CAIRD, ESQ.

[Read before the Statistical Society, March, 1868.]

I.

I HOLD in my hand a little blue book which has cost the country ten thousand pounds, and yet it is one of the cheapest ever published at the public expense. It contains the agricultural returns of 1867, obtained from nearly 500,000 persons, on every farm, large and small, in Great Britain; and the more it is studied the more clearly will it show the immense value to the public of the facts which it embraces, and the brief yet perspicuous manner in which they are presented. The greatest credit is due to the departments through which they have been gathered—to the Inland Revenue, by whose organisation this most extensive inquiry has been conducted, and to the statistical department of the Board of Trade, by whom the returns have been collated and elaborated.

Twenty years' experience has now been gained of free trade in corn. In that time we have imported nearly one hundred and twenty million quarters of wheat, which is a yearly average four times greater than that of the twenty preceding years. Since 1861, the annual imports of all kinds of corn have averaged three million tons in weight, equivalent to one voyage of the total tonnage of the United Kingdom employed in the foreign trade. The official value of these yearly imports has ranged during that short period between twenty and forty millions sterling. Of the whole corn of all kinds consumed in this country, we receive one-fourth from abroad, and for the great staple—the staff of life—wheat, we are dependent on the foreigner for one-third of our annual supply.

Returns which have given us a basis of certainty upon which to compute our annual requirements, and to provide for them—and which will tend to prevent panic, and sudden and unnecessary fluctuations, in interests so vast and important—are indeed cheaply purchased by so small a cost. It will be my task in this paper to exhibit their general results, and to show some of the modes by which they may be used for the public advantage.

It may be interesting at this point to note in a single paragraph the principal changes which have taken place in English agriculture during the last three centuries. In the middle of the sixteenth century, beef and pork were sold at a halfpenny a pound, mutton and veal at a halfpenny half-farthing. The preamble of the statute fixing these prices, states that these "four kinds of butchers' meat "were the food of the poorer sort." But there was a scarcity of corn. Laws were therefore enacted against throwing the land into pasture. The number of sheep allowed to be kept by one farmer was restricted to 2,000. No corn was allowed to be exported. An acre of good land in Cambridgeshire was let at a shilling. A hundred years later there seems to have been a regular importation of foreign corn, it having been computed that 2,000,000*l*. went out in one year to pay for it. The high price led to increased home production. Then began a new policy. Not only was the exportation of corn allowed, but it was stimulated by a bounty. A hundred years later, in 1753, corn riots disturbed the country, and continued during that and the following years, in consequence of the high price of corn, alleged to be caused by the bounty on its exportation. After that the country passed through a period of protection against foreign corn, and a stimulus was thus offered in a different direction to its home growth. When that policy finally disappeared in 1848, the great bulk of the people had ceased to know anything of butchers' meat, except as an occasional Sunday luxury. Now, after twenty years of free trade, clear of all stimulus of bounty or protection, the natural balance brings us round to a position in which every country, according to its own interests, has become tributary to us for the various supplies that we require; our own soil is applied to the production that each man finds most remunerative; and, participating in the general welfare, the great body of the people are able to share, not only in the bread, but in the meat from which their fathers for three generations were compelled to abstain.

The chief advantage of the returns is the certainty we have thereby obtained of the acreage of our various crops, and of the numbers of the different kinds of live stock. If we compare the facts now ascertained with the estimates most carefully prepared in 1853 by that eminent authority, the late Mr. McCulloch, we find a remarkable agreement in the total acreage of corn, but a great difference in two of the principal kinds. The wheat is nearly the same in both—3,640,000 in the returns, and 3,750,000 in the estimate. In barley there is an immense discrepancy, especially as regards England, where two million acres are returned, and one million estimated. For Scotland and Ireland the error is the other way, 388,000 acres being returned, and 750,000 estimated. In oats the discrepancy is about one million acres, much of which can be accounted for by the ascertained diminution which has taken place since 1853, the date of the estimate. And, in regard to barley, there cannot be a doubt that a great increase since that time has been made to the acreage, from the gradually rising proportion which of late years the price of barley has borne to wheat.

I cannot leave this part of the subject without recording my admiration of the general accuracy of Mr. McCulloch's estimate of the total acreage of corn, viz., 11,470,000, as compared with 11,450,000 shown by the returns.

Nothing like the same accuracy is to be found in some of the estimates of live stock. In 1836, the number of cattle in the United Kingdom was estimated by one writer, quoted by a leading agricultural authority, at 15,400,000. The actual numbers now are found to be 8,700,000. The sheep in Great Britain were estimated at 48,000,000: the actual numbers are 28,000,000. The pigs were estimated at 18,000,000: the actual numbers are 4,000,000. In number and value that great branch of our national property, the live stock, seems thus to have been estimated at 100 per cent. more than really existed!

The changes that have taken place in Scotland and Ireland during the last ten years are shown in the returns, and are very considerable, the acreage of wheat having dropped one-half in that period. The loss of wheat in Scotland has been recovered by a nearly equal increase in barley and oats, but in Ireland there has been a loss also in each of these crops of about a sixth. It is nearly compensated by a gain, during the same period, of 120,000 cattle, 1,000,000 sheep, and 278,000 pigs. The most striking change recorded is seen by the Irish returns—conducted so ably for more than twenty years by the registrar-general, Mr. Donelly—which show in the following figures the production of corn and potatoes:—

	Corn.	Potatoes.
	Qrs.	Tons
1857. Total estimated yield	11,500,000	3,500,000
'66. „	8,800,000	3,000,000

These ten years mark a great change in the husbandry of Ireland, the production of corn having fallen nearly one-fourth, while that of potatoes has declined one-seventh. That a change in the same direction in regard to corn has been going on in England I have no doubt, though not to anything like the same extent. But the rapidity and magnitude of the changes which are now known to have taken place in the breadth of corn land, in Ireland and Scotland, are most convincing proofs of the public advantage of annual returns for the whole kingdom.

II.

The acreage having been obtained, the first step, in reckoning the produce of the crop, is to find the yield per acre of an average of years, and the influence of seasons on the yield of each year. I here confine myself to the yield of wheat, which is the staple bread corn of the country.

No one can have studied this subject without being impressed with the great care bestowed on the question by Mr. Jacob, Mr. Tooke, Mr. Newmarch, and Mr. McCulloch. When, therefore, in putting forth an estimate of our crops in 1851, I felt myself obliged to differ from these very eminent authorities, I ventured to do so only from the conviction that the extent of my own inquiries, as "Times'" commissioner, in nearly every county in England, had given me a command of facts not before accessible. Thirty to thirty-two bushels of wheat an acre had been accepted as the average produce of this country. The facts I had ascertained led me to fix it, in 1850, at not more than 26½,—and, notwithstanding the improvements which in the last eighteen years have been made, I do not believe that the average yield of England at this time exceeds 28 bushels.

After a certain point is reached the progress of average yield per acre is very slow. Arthur Young, in 1770, summed up the result of his inquiries at an average of 23 bushels an acre. In 1850 mine gave 26½, the whole increase in eighty years being thus only 3½ bushels. Careful inquiry and observation lead me to the conclusion that, in the eighteen years which have since elapsed, it would not be safe to take credit for an increase greater than 1½ bushel, and even that is nearly twice the rate of progress of the preceding eighty years. We must not forget that a large portion of the wheat land of England is clay of moderate quality, as is proved by the fact that there are still one million acres every year in bare fallow. The average produce of wheat in Ireland during the last twenty years, has been found to be a little under 24 bushels. But even this is higher than that of any of our European neighbours, and 50 per cent. above the average of France. Taking the proportion of acreage in England and Ireland, I find 27 bushels to be the average yield of the United Kingdom.

The influence of seasons on the yield is the next step to be considered. Its magnitude and effects are very easily illustrated. Of the last twenty years, 1854 and 1863 were the most prolific seasons; 1853 and 1867 the worst. The difference in weight and yield of wheat in 1863 and 1867, was equal to 14 bushels an acre, 1863 having been 8½ bushels above the average, and 1867 5½ below it. The result is as follows:—

	£	£
Cost of wheat and flour, 1863	40,000,000	—
Of which paid for foreign corn	—	6,100,000
Cost of wheat and flour, 1867	70,000,000	—
Of which paid for foreign corn	—	33,500,000
Difference caused by bad season	30,000,000	27,400,000

Not only is the price augmented to the consumer by the whole amount of this loss, but nearly the whole of it goes out of the country. There are many here more competent than I to reckon its influence on trade and commerce; and to estimate the value of being early forewarned, that thirty millions sterling more will be required in a given year to pay for the bread corn of the people, and twenty-seven millions more gold be exported in its purchase from abroad.

I have framed the following table, showing the fluctuations of the seasons, and their effect on the yield of wheat in the last twenty years, on the basis of the experiments of Mr. Lawes, in Hertfordshire, which have proved a very satisfactory index of the general yield over the chief wheat producing area of the kingdom, and are indeed the most instructive series of facts for the guidance of the British corn-grower on record.

	Yield in Bushels *Minus* or *Plus* the Average.
First Cycle of Six Years—	
1848	− 9¾
'49	− 1
'50	− 5
'51	− 3
'52	− 7
'53	− 16
Second Cycle of Six Years—	
1854	+ 9
'55	+ 1
'56	+ 1
'57	+ 7½
'58	+ 6
'59	average
Third Cycle of Six Years—	
1860	− 3
'61	− 1
'62	+ 5
'63	+ 12½
'64	+ 7½
'65	+ 4
Fourth Cycle—Commencement of—	
1866	− 2
'67	− 6

A careful consideration of these figures will bring out many points of interest affecting the revenue and wealth of the country, and the comfort of the people. For it is well that we should remember that every requisite of food or clothing is an annual product of the earth, yielded, no doubt, to a large degree, in proportion to the ingenuity and industry employed on it by man. But when man has done his utmost, the result is determined by influences beyond his control. In the literal words of the great apostle, Paul may plant and Apollos water, but God giveth the increase. Of those substances on which life and health day by day depend, there is every year a new production. There is not a single article of food and clothing that is not, directly or indirectly, of vegetable growth; not accumulated and stored away in the bowels of the earth like our mineral wealth, but dependent year by year on the sun and rain in due season. If we draw a line in the column, beginning with 1854 and ending with 1865, we shall find the remarkable fact, that in these twelve years there were ten good harvests in England, and only two below an average. This covered the whole period of Lord Palmerston's successful administration. During these twelve years we had to bear the burden of the Crimean war, followed by the Indian mutiny, and the increased military expenditure begun in 1860. From 1855 to the last year, our annual expenditure has averaged sixty-seven millions as against the fifty millions of preceding years, and during that period there has been an actual diminution of taxation of from five to six millions, with no increase in the national debt. Can it be doubted that such a run of propitious seasons aided the gifted minister who conducted the finances of this country to meet successfully our vast expenditure, not only without serious pressure on the people, but with largely increased development of their industry and resources?

Now, this element of uncertain seasons, against which man is powerless to provide, is in reality not so difficult to estimate in its effects as it appears. The great bulk of wheat in this country is produced along the eastern and southern seaboard, from York to Devon, and the adjoining inland counties, extending over little more than three degrees of latitude, within which climate and seasons are very much alike. Hence a few careful trials will very accurately reveal the yield over the whole region. The annual trials of Mr. Lawes, in Hertfordshire, which have been conducted with the greatest care for more than twenty years, have proved a wonderfully accurate test of the general yield of the country. That county is a nearly central point in the wheat region. But we need not limit ourselves to it. Accurate trials of yield in various parts of the district may be made by anyone who will take the necessary pains; and according to the care and judgment bestowed, will be the benefit derived in an early appreciation of the result. As greater facility is acquired by experience in the collection of the returns of acreage, we may hope soon to have the facts published in August or early in September. The abstract for Ireland was published for 1867 on 12th September. The public will then have only to apply to that acreage their own ascertained rate of yield, and the total crop of the year will be known. Our farmers being first in the market, and most competent of all persons to test the yield, will be in a position to derive the earliest advantage from the returns.

Let us now apply the preceding data to a calculation of the yield of the last harvest. By the middle of September let us suppose that we have had in our hands the returns of acreage. We take examples from various districts typical of the climate of the year, and find, on careful measurement after threshing, that the yield of wheat has been 6½ bushels below the average, but of better than average weight, so that the actual deficiency is reduced to 6 bushels an acre, or 21 bushels instead of 27, as the yield of the crop for 1867 for the whole kingdom. We apply these figures to the acreage of wheat shown by the returns, and find that our last wheat crop will yield us only 9,700,000 quarters.

III.

Here enters the question of annual consumption, for on its amount and the degree in which it is affected by price depends the extent of our further requirements.

On this important point in our calculations, I have prepared a table of produce and imports for the five years preceding 1867, during which period the Irish returns show us that the breadth of corn has undergone little variation. It shows the fluctuation of yield and the total produce of each year, the foreign supply required and received during the succeeding year, the average price of that year, and the total supply of home and foreign wheat and flour in each year from 1862 to 1867. To this I have added my estimate of the produce of crop 1867.

Crop.	Rate of Produce of Bushels per Acre.	Total Home Produce.	Estimated Requirements.	Foreign Supply Received during Succeeding Year.	—	Average Price of that Year.		Total Supply.
		Qrs.	Qrs.	Qrs.		*s.*	*d.*	Qrs.
1862....	29⅜	13,700,000	7,100,000	7,205,000	1863	44	9	20,905,000
'63....	35¼	16,300,000	4,500,000	6,727,000	'64	40	2	23,027,000
'64....	32½	15,000,000	5,800,000	6,029,000	'65	41	10	21,029,000
'65....	29	13,400,000	7,400,000	6,850,000	'66	49	11	20,250,000
'66....	25½	11,700,000	9,100,000	7,283,000	'67	64	4	18,983,000
	—	—	33,900,000	34,094,000		—		20,800,000 average of 5 years
1867....	21	9,700,000						

Within this short period is included 1863, the very best crop we have had for twenty years, and 1867, the worst but one. It presents in a very striking manner, therefore, the range of fluctuation in yield, supply, and price, and if carefully studied will show how each affects the others. The first four years were productive, and, the imports exceeding our need, prices fell to the lowest point since 1853. In 1866 the crop was inferior, the price began to rise, and imports at once increased. But not at once to the extent of our requirements, which were met by the accumulation of stock during the previous abundant years. These had been nearly worked out when the very deficient harvest of 1867 was reaped.

A glance at the table will show the rapidity of the changes in our home supply and requirements, and will tend to confirm the accuracy of my statement of the average yield. It shows us that the average yearly consumption of the country during the last five years has been 20,800,000 quarters.

To what extent is that affected by price? On this point I had the advantage of hearing the opinion of Mr. Newmarch, lately expressed in this room, in which I generally concur. It was to the effect that the consumption of bread is very constant, that everything is given up before bread, and that bread being the staff of life it must be had by the people whatever the price may be. This view is confirmed by inquiries which I have since made among some of the leading bakers in the most densely peopled quarters of Whitechapel in the east, and the Harrow Road in the north-west, one of whom has been thirty years in business, and has now three shops in a district entirely inhabited by the working classes. Their testimony is that the consumption of bread at present is very large, for, although dear, it is still the cheapest article of food within reach of the poor, the next substitute, potatoes, being scarce and very dear. Still I feel persuaded that price has some influence, and that the rise on the quartern loaf of household bread from 5½*d.* in 1864 to 9*d.*, the present price, must produce some effect on the total consumption. With that belief, I will assume that every 10 per cent. of additional price on the loaf, diminishes the consumption by at least 1 per cent.

Having now ascertained the produce of the last crop, the average yearly consumption, and the probable rate of economy caused by high price, we are in a position to fix with as great a degree of certainty as is necessary for all practical purposes the supplies which the country will need till next harvest. The only other points affecting the calculation, are the amount of old stock in hand from previous harvest and imports, and the length of time, varying between eleven and a-half and twelve and a-half months, over which the pressure may extend before a new harvest can be reaped. These, however, are questions that will not greatly affect the price for the whole year, though they may cause fluctuation, and I think Government ought not to offer any opinion on this, but leave it to the market. For the same reason, because it will to a certain extent be matter of estimate, Government may very well leave all parties interested to ascertain for themselves the relative yield of each harvest, and to act as each sees fit on his own sources of information.

My view of the last crop, and of our probable requirements and supplies for the present year, is as follows:—

		Qrs.
Average annual consumption		20,800,000
Home produce of 1867		9,700,000
		11,100,000
Old stock on hand almost exhausted, and therefore no deduction can be safely made on account of it.		
	Qrs.	
Economy in consumption caused by high price, 5 per cent.	1,040,000	
Eight days' consumption, saved by lateness of last harvest	460,000	
		1,500,000
Foreign supply required		9,600,000

This is at the rate of 800,000 quarters monthly.

Six months of the harvest year have now passed, during which our supplies have amounted to nearly 5,000,000 quarters. Thus far, therefore, the imports would appear to have equalled our requirements. And if my computations are well founded, the balance required during the six months till next harvest, is about 4,600,000 quarters. This is a monthly rate of 765,000 quarters, or somewhat less than the rate at which, during the last six months, the high prices ruling have brought us foreign corn. In the corresponding six months of last year, our foreign imports exceeded 700,000 quarters monthly, when the price of the preceding six months was 10*s.* less than at present. I think, therefore, that no apprehension need be felt as to adequate supplies till next harvest.

It will be interesting to consider here the rate of price which, in the past twenty years, has been found sufficient to draw out supplies, and then to complete this question by a short consideration of the sources whence we draw our annual supplies.

In regard to price, the first consideration, next to our own crop, is the character of the harvest in France. As a general rule, the seasons which are favourable or otherwise for England, are so also for France. In a good season, when we least require it, she gives us of her abundance, but we have to meet her as a competitor in the world's market, when, as in the last season, the crops in both countries are heavily deficient.

The worst harvest we have had in twenty years was 1853, following a deficient harvest in 1852. The deficiency of the home crop in 1853 was twice as great as that of 1867, but an average of 72*s.* 6*d.* in the following year, brought us sufficient supplies. 1860 and 1861 were short crops, but an average of 55*s.* 6*d.* sufficed to draw supplies. Since 1861 the crops have been above an average, till 1866, when the seasons changed; and the crop was short, and 1867, following on that, is the worst we have had since 1853. The pressure has been increased by the short crop of potatoes and their high price, and by the bad harvest in France, and generally in Western Europe. But up to this date our supplies have been ample, and we have some comfort in the prospect of the next crop, which was sown in one of the best seed times known, and, under the inducement of the high price at that time, on a largely increased breadth of land.

IV.

Some instructive tables are given in the returns, showing the area and crops of the various countries whence we draw our chief supplies of corn. The Board of Trade tables furnish the imports. The following figures, in their order, give the proportions in which the various countries, during the twelve years ending with 1866, have contributed to our wants in wheat:—

	Per Cent.
United States	35
Germany	20
Russia	17
France	12
Egypt	6
Other countries	10
	100

The most distant region in the list gives us more than one-third of the whole. The crop reaped on the prairies of the Mississippi finds its way one thousand miles to the sea-board, and is then transported three thousand miles by sea, has to bear all the cost of a double transhipment, the profits and commissions and charges of the various persons through whose hands it must pass, and the final duty of 1*s.* a quarter, before it comes into competition with the home-grown crop. It is not many years since men could prove that the cost of a certain limited number of miles of transport would exhaust the entire value of corn, and that the range within which it was procurable for our wants, must be therefore comparatively limited. The extension of railways, the widening of canals, the use of steam elevators, and the ingenuity and enterprise of the American people, have wonderfully extended that limit. Russia also, already a large contributor to us, will by the same means have her great plains brought year by year more within reach of Western Europe.

So widely spread are the sources of supply, that it is difficult to conceive any circumstance but one that could seriously affect us. We have in the period to which I refer, had a war with Russia, during two years of which there was a total suspension of Russian supply. But Egypt and Spain, in those years, made up the whole of the deficiency. It has never happened that all the countries have had a bad season at the same time. If Western Europe fails, America or Egypt is prolific. In 1856 France could spare us only 30,000 quarters, but America gave us 2,300,000. In 1859 America sent only 100,000, but France, the same year, close upon two millions. For the next four years, all through the war to the end of 1864, America was blessed with bountiful harvests, and poured upon us her superabundance, with little reference to price; and during these years France had very little to spare. But in 1865 and 1866 seasons changed again—America fell to 30,000 quarters, and France rose to nearly two millions.

The one circumstance which might seriously affect us, would be a continued cessation of supplies from America. Of the 11,000,000 quarters we imported in 1862, she gave us five; and, as the figures show, we have received for many years from her, on the average, more than one-third of our yearly supply. In cotton, an import second only in necessity and value to corn, she gives us more than two-thirds of all we receive. Let us hope that interests so great and so mutually beneficial as those which bind together the two great Anglo-Saxon races on opposite sides of the Atlantic may be more and more cemented by acts of mutual confidence and good-will.

How vast her capacity of export may become, it is impossible to conjecture. From the official returns of her last wheat crop, very little of which can have yet reached us, she could, after retaining enough for her own consumption, spare us one-half of all we shall this year require. She produces annually upwards of one hundred million quarters of Indian corn. Indeed, so great and so constant is the yield of this prolific grain, that there may be said to be practically no limit to the supply which in any year a sufficient price could bring into the market.

The effect of good or bad seasons is more intensely felt in all the chief corn countries than in our own. This arises from our higher average rate of produce, and the consequent smaller extent of surface at the mercy of the seasons. A bushel an acre, above or below the average, makes a difference to us of less than half a million quarters in the total yield. In the United States, each bushel indicates a million and a-half quarters, and in France upwards of two million quarters of variation. Hence the suddenness and severity of the fluctuations in those countries as shown by their exports to us.

I cannot leave this part of the subject, without noticing the extremely low average yield of wheat in France. She stands lowest in the scale. England I have stated at 28, Ireland is 24, Austria, Spain, and Holland 23, Belgium 21, and France only 15½ bushels an acre. If this is a correct statement of the yield of France, her average rate of produce is less than that of the very worst crop in England during the last twenty years. It is indeed precisely the same as the yearly average produce of Mr. Lawe's experimental plot, on which for twenty-four years in succession he has grown wheat without manure.

In 1855, while travelling in France, my attention was drawn to the very low rate of her acreage yield of wheat as compared with ours, and after publishing my own views on the question, I had an opportunity of discussing them with the eminent French statist M. Léonce de Lavergne, who agreed with me that, apart from the difference in soil and climate, it is probably to be accounted for by the fact that, while our grass and green crops, or restorative area, are as two to one of our corn, France is exactly the reverse, her corn or exhaustive crops being as two to one of her grass and green crops. But she, too, is becoming more meat producing, and the margin she has to fill up, by increase of yield, is so wide, that a rise of only half the space between her present yield and that of England, would enable her to spare a surplus greater than we have ever yet required from all foreign countries in a single year.

V.

Having thus endeavoured to explain what I conceive to be the main value of these returns, in affording a basis for reckoning, with accuracy, and at an early period, the supplies of corn needed for our consumption, and having dwelt with some minuteness on the various elements which ought to be taken into the calculation, I will now touch on the other great branch of our agricultural wealth—the live stock, and then briefly consider certain changes in our agricultural management, revealed by the returns, which have naturally flowed from the adoption of free trade.

The returns of live stock having been made at different periods of the year, do not yet help us in speaking with certainty as to how far the losses by cattle plague have been made good. Up to October, 1867, when the plague had died out, about 130,000 cattle had died, and 57,000 healthy cattle had been killed to prevent the spread of the disease. The returns show an increase of 161,000 cattle in 1867 over the preceding year. So far as numbers go, therefore, the actual deaths by disease would appear to have been fully made good. But until another year's return is made from the same period as 1867, we cannot depend on the figures representing the same comparative data. A like remark is even more applicable to sheep, the figures in the year 1867 being to a large degree swelled by including lambs born at a date subsequent to that of the returns of 1866.

They enable us, however, to reckon the approximate number and value consumed as food, and, along with the returns of crop, to compare the value of our entire agricultural produce with the foreign supply. As this is a point of the greatest interest and importance, I have compiled a table with as much care and consideration as I can command, showing the average amount and value of the whole agricultural produce of the United Kingdom, consumed annually, the value of the same articles received from abroad, and the proportion in which the total supply is contributed by the foreigner:—

	Home Produce.	Foreign Supply.	Proportion of Foreign to Total Supply.
	£	£	
Corn of all kinds	84,700,000	25,000,000	One-fourth
Beef and mutton	47,200,000	6,500,000	One-ninth
Butter and cheese	30,100,000	8,400,000	One-fifth
Potatoes	18,000,000	200,000	—
	180,000,000	40,100,000	One-fifth

To these must be added the annual product of wool, 8,000,000*l.*, and of flax 2,000,000*l.* sterling, but these enter into the manufacturing industry of the country, and do not come within our present inquiry. There is no return of horses for Great Britain, and they cannot therefore be included, and the pigs are comprised in the meal and potatoes.

The home produce is thus supplied by each of the three divisions of the kingdom:—

	England.	Scotland.	Ireland.	Total.
	£	£	£	£
Wheat	28,500,000	900,000	2,100,000	31,500,000
Barley	16,400,000	2,800,000	1,200,000	20,400,000
Oats	10,900,000	6,200,000	8,600,000	25,700,000
Beans, peas, and rye	6,500,000	350,000	150,000	7,000,000
Potatoes	4,100,000	1,900,000	12,000,000	18,000,000
Cattle and dairy produce	32,500,000	6,500,000	19,500,000	58,500,000
Sheep and wool	18,400,000	4,400,000	4,100,000	26,900,000
Flax	—	—	2,000,000	2,000,000
	117,300,000	23,050,000	49,650,000	190,000,000

And in the following proportions in each country per head of the population, and per head of the persons, according to the census of 1861, possessing or working the land, and engaged in its cultivation:—

	England.		Scotland.		Ireland.	
	Per Head.	Per Producer.	Per Head.	Per Producer.	Per Head.	Per Producer.
	£ *s.* *d.*	£ *s.*	£ *s.*	£ *s.*	£ *s.* *d.*	£ *s.*
Corn	2 18 6	32 2	3 5	30 –	2 3 –	12 15
Cattle and sheep	2 7 6	26 8	3 9	31 6	4 4 6	25 5
Potatoes	– 4 –	2 2	– 12	5 9	2 3 –	12 15
Flax	—	—	—	—	– 7 –	2 2
	5 10 –	60 12	7 6	66 15	8 17 6	52 17

Though these figures are offered only as an approximate valuation, they are interesting as indicating the relative results of agriculture in the three divisions of the kingdom, and the important share which Ireland, even in her present depressed condition, contributes to the whole supply of food.

The foreign produce in greatest supply is that which can bear longest carriage, and can be packed in least bulk. Whilst we receive one-fourth of our corn, cheese, and salt butter from abroad, the foreigner sends us, as yet, only one-ninth of our meat, and one-ninetieth of our potatoes. Those who can recall the controversies of twenty years ago on the probable effects of free trade, will, I hope, pardon me for introducing a passage written by me at that time, in which I then ventured to speculate on the probable effect of free trade on British agriculture:—"As the country "becomes more prosperous, the difference in the relative value of "corn and stock will gradually be increased. The production "of vegetables and fresh meat, hay for forage, and pasture for dairy "cattle, which have hitherto been confined to the neighbourhood "of towns, will necessarily extend as the towns become more "numerous and populous. The facilities of communication must "increase this tendency. Our insular position, with a limited "territory, and an increasingly dense manufacturing population, is "yearly extending the circle within which the production of fresh "food—animal, vegetable, and forage—will be needed for the daily "and weekly supply of the inhabitants and their cattle, and which, "both on account of its bulk, and the necessity of having it fresh, "cannot be brought from distant countries. Fresh meat, milk, "butter, vegetables, and hay, are articles of this description. They "can be produced in no country so well as our own, both climate "and soil being remarkably suited to them. Wool has likewise

" increased in value as much as any agricultural product, and there " is a good prospect of flax becoming an article of extensive " demand, and therefore worthy of the farmer's attention. The " manufacture of sugar from beet-root may yet be found very pro-" fitable to the English agriculturist, and ought not to be excluded " from consideration. With the great mass of consumers, bread " still forms the chief article of consumption. But in the manu-" facturing districts, where wages are good, the use of butchers' " meat and cheese is enormously on the increase; and even in the " agricultural districts, the labourer does now occasionally indulge " himself in a meat dinner, or season his dry bread with a morsel " of cheese. Among the better classes, who can afford it, the " expenditure in articles the produce of grass and green crops, is " nearly nine times as great as in corn.

" This is the direction in which household expenditure increases " when the means permit. It is reasonable to conclude that the " great mass of the consumers, as their circumstances improve, will " follow the same rule. The only species of corn which has risen " materially in price since 1770 is barley, and that is accounted for " by the increasing use of beer, which is more a luxury than a " necessary of life. Every intelligent farmer ought to keep this " steadily in view. Let him produce as much as he can of the " articles which have shown a gradual tendency to increase in " value."

Writing now, with the additional experience of eighteen years of free trade in corn, I can do no better than repeat that advice. The great margin still to be filled up by our own farmers is the daily supply of fresh meat, fresh dairy produce, vegetables, and barley. Since 1850 the price of bread on the average has remained the same, while that of meat, dairy produce, and wool has risen 50 per cent., notwithstanding an immense and increasing import of these articles. This and the steadily advancing price of barley, to which I then referred, is the true explanation of increasing rents and agricultural prosperity, notwithstanding increasing receipts of foreign corn.

In the production of barley, as in that of long lustrous wool, this country is still without a rival. Since 1835, when tithes were commuted into a money payment, the average value of the three kinds of corn together has not on the whole altered; but the price of wheat has fallen 12 per cent., while barley has risen 8, and oats 4. The growth of barley in this country has nearly doubled in extent within the last twenty years. While it yields the largest weight per acre of any kind of corn, it seems the least exhaustive to the soil, and leaves it in the best condition, as it occupies the ground for the shortest period from seed time to maturity.

VI.

I come now to the application of my paper by the question, how much do these vast supplies yield to the daily wants of the people, in what proportions are they distributed among them, and what modifications seem probable in our system of husbandry?

Writers on dietetics tell us that one pound of bread, one pound of potatoes, and six ounces of meat are required for the minimum of daily healthy diet. I have computed the amount of all our supplies, home and foreign, of wheat, potatoes, and meat, have converted the wheat into flour, and the flour into quartern loaves, and I find that if our bread, potatoes, and meat were equally spread over the population of the United Kingdom, the present supply would give one pound of bread and one pound of potatoes, but only two ounces of meat, and the equivalent of one ounce of butter or cheese daily to each person. But it is not equally spread, the proportions in Britain and Ireland being really very different. The people in England and Scotland have among them a pound and a quarter each of bread, and half a pound of potatoes a-day; the people in Ireland four and a-half pounds of potatoes each, and only a quarter of a pound of bread.

Whilst there is thus in Ireland still far too great a dependence on the potato for food, there would seem to be room in England for some additional supply of that esculent, so wholesome as a portion of diet. The home supply might be increased with great advantage to the consumer by the extension of potato husbandry on suitable soils, in all the English counties, near the seats of large populations.

The proportion of population in various European States to each acre of potatoes, and therefore the degree of their dependence on it for food, affords a tolerable indication of their material prosperity. They stand in the following order:—England 66 people to each acre of potatoes; Wales, 26; Scotland, 20; Denmark, 20; Belgium, 13½; Holland, 13; France, 12½; Sweden, 12; Prussia, 5½; Ireland, 5½. Prussia and Ireland thus stand out pre-eminently as potato countries. They have consequently suffered the most severely by the disease of that root, and the emigration from both countries has been greater than from all other European States. But, notwithstanding the past, so great is the temptation presented by this prolific root to the necessities of a poor population, that its culture in Ireland within a very few years after the famine rapidly revived, and at this moment the production of potatoes in proportion to the diminished numbers of the people, and their dependence on it for their food, is almost as great as it was before 1845.

In Prussia, the production of potatoes is also enormous, but the root is not used as in Ireland, solely as an article of food. The

German excise regulations are so framed as to admit of greater freedom of action on the part of the farmer, who is thus enabled to unite with his agriculture the business of distillation. He extracts the spirits for sale, and retains on his farm the other feeding properties which his roots possess. Two million tons of potatoes are thus annually disposed of in Germany. German spirits find their way all over Europe, and, notwithstanding the enormous rate of duty to which, in common with the spirits produced in those countries, they are everywhere subjected, the business thrives and increases.

All our root crops contain varying proportions of sugar, which in many cases might, in one form or another, be extracted with advantage on the farm; the other qualities of the root being used for cattle food. But the stringency of our excise laws has hitherto prevented every attempt so to utilise it. Now the British Islands, and Ireland especially, are pre-eminently fitted for the production of root crops and barley. Why should they be restricted in the conversion of these to the most profitable use? The time seems to have come for a reconsideration of our excise laws, and for the substitution, if it be possible, of such a system of levying duties as should leave to the producer the most perfect freedom for the fullest development which skill and capital might enable him to make.

In the extract already read, reference was made to flax and to sugar, as articles likely to form a future object of culture to the British farmer. Flax has now attained considerable importance in Ireland, the annual value of the home growth in recent years exceeding two millions sterling, or nearly one-half of the total value used in that important branch of our manufactures. Sugar from beet was tried in Ireland twenty years ago, but failed, chiefly for want of the necessary arrangements to carry out the extraction and purification of the juice. The question has this year been revived by some persons as a remedy for the ills of Ireland; by others as a branch of national industry, which, if it succeeds, will be alike advantageous to the agricultural interests of the United Kingdom, and to the consumers of sugar. The steady and continuous extension of beet-root sugar on the continent, within recent years, sufficiently proves its remunerative character; for wherever the culture has been established, the employment and wages of labour have been increased, the number and quality of fattened cattle have augmented, and the land has become more productive and more valuable. Having been consulted as to the most suitable county in which to make a beginning in England, I examined the agricultural returns, and suggested Suffolk, that county being the most extensive producer of mangold near the metropolis. And I am glad to be able to announce that arrangements have now been completed to try the experiment in that county, this year, on a scale sufficiently large to test its probable success.

I might now proceed to many most interesting points, affecting agriculture, disclosed by these returns—such as the relative productiveness of districts of large and small farms; of corn and grass; of sheep and cattle; of dairy husbandry; of the course of crops in particular districts; of the importance and wealth of certain counties as compared with others; the extent of farms as influenced by climate and soil, on all of which the most valuable information is afforded. But these questions must be left to other labourers, or to another time. Suffice it now, in conclusion, to say that the effect of free trade on the food of the people of this country has been to moderate the price, and immensely increase the supply of food. And for my own part, I feel thankful that in the House of Commons I was the instrument of carrying a resolution which led to the collection of these returns. For, in supplying a basis of certainty in the acreage, they have given us the power of answering, with accuracy and in good time, the question whence the thirty millions of people, who live within the narrow limits of the British islands, shall year by year be provided with their daily bread.

NOTE.—The prices and proportions on which the valuation of the annual produce of live stock was made are as follow:—Dairy produce of cows in England, 10*l.* each; in Scotland, 8*l.* each; Ireland, 7*l.* each. One-fourth of the whole of the cattle in the respective countries is assumed to be sold annually at 16*l.* each in England, 14*l.* in Scotland, and 10*l.* in Ireland. Of sheep, the wool is valued in England and Ireland at 8*s.* a-head, and in Scotland at 6*s.* One-third of the sheep in number in England and Ireland, and one-fourth in Scotland, are assumed to be sold every year at an average price of 35*s.* each.

APPENDIX.

Estimated, Compared with Ascertained Extent of Crops.

In my letters in 1850 as "Times'" commissioner, the extent of the various crops in England was estimated, and the estimates are here shown in comparison with the actual acreage now ascertained by the returns:—

	Mr. Caird's Estimate in 1850.	Agricultural Returns in 1867.
	Acres.	Acres.
Wheat	3,416,000	3,140,000
Barley	1,417,000	1,892,000
Oats and rye	2,000,000	1,550,000
Beans and peas	1,139,000	820,000
Total corn crops	7,972,000	7,402,000
Green or root crops and rape	2,416,000	2,700,000
Bare fallow	1,000,000	753,000
Clover	2,277,000	(1866) 2,296,000
	13,665,000	13,151,000

The changes shown by these figures are—

		Acres.
A diminution in wheat of		280,000
" oats		450,000
" beans and peas		320,000
" bare fallow		247,000
		1,297,000

And—

	Acres.	
An increase of barley	500,000	
" root crop	300,000	
" clover	20,000	
		820,000
Diminution		477,000

The difference has probably gone into permanent pasture.

These changes are quite in accordance with what might have been anticipated, and tend to confirm the accuracy of the estimate made in 1850.

On the COMPARATIVE POPULATION *of* EUROPEAN STATES.

By SAMUEL BROWN, ESQ., F.S.S.

[Read before the Statistical Society, April, 1868.]

CONTENTS:

	PAGE		PAGE
I.—Population in General	147	IV.—Rate of Marriages	158
II.—Births	151	V.—General Observations	159
III.—Deaths	154	APPENDIX. Tables A to E.	160

THE different Statistical Congresses which, since the Great Exhibition of 1851, have been held in this and other countries, have had for their principal object to introduce uniformity and a general method into all those public documents which exhibit the social, moral, or commercial condition of nations. By these means the causes which accelerate or retard their social progress may be the more easily discovered, and many problems in political economy solved, on which the researches of individuals in a narrow sphere could never hope to throw much light.

But, hitherto, the discussions have been generally confined to the methods of inquiry, and the forms in which the information collected should be published, so as to allow of accurate and minute comparison.

It was not till the Congress in London, that M. Quetelet, to whose intellectual labours, more than perhaps those of any living author, the study of statistics owes the scientific position it has taken up, proposed that a commencement should be made by an actual compilation of facts relating to the population of different countries on a uniform plan. It was not intended to go into minute details; but to show those marked features which would interest other nations as well as the one specially under observation. The population in provinces or departments, the influence of age on health and mortality, the distinctions of town and country life, the most important professions, and the different races of men,—these were some of the broad outlines common to all nations.

The idea was warmly approved, and the representatives of nearly all the States in Europe, and also of the United States of America, gave their cordial adhesion to the scheme. Their names are too well known to the members of this Society to require mentioning here. Most of them will be found in my recent Report on the Statistical Congress at Florence last year.

M. Quetelet, assisted by M. Heuschling and other zealous and enlightened officials of the Belgian Government, undertook the great labour of collecting, condensing, and putting into a uniform shape, the mass of materials forwarded to them from all countries. The results have been published by the Belgian Government in the "Bulletin de la Commission Centrale de Statistique," tome x, 1866, with a preface most ably written by M. Quetelet, containing a summary of the leading facts and explanations of the method in which the censuses are taken in different countries. Some notion may be formed of the value of the materials, and of the immense labour of the compilation, when it is stated that even this brief summary of the official documents consulted, comprises four hundred quarto pages of tables, and yet relates only to the more important population statistics of different States.

M. Quetelet presented this most valuable work to the Statistical Congress of Florence last year, and was deservedly greeted with the applause of his colleagues.

In bringing it before the notice of this Society, I cannot but express a hope that similar pains will be given to a compilation of the statistics of agriculture, commerce, the means of transport and locomotion, and the financial condition of all countries. It would be a work worthy of the ability and skill of those eminent men, who have already earned the gratitude of all students of statistics by their devoted and useful labours.

I.—*Population in General.*

It must be noticed that the comparisons of population relate principally to the returns for 1861, the period of our last census; and though some modifications would have to be made at the present time, it forms a stand-point for comparison at our next census, when, it is to be hoped, another decennial collection will be made from European States, still more perfect than the one now under consideration. It must also be remarked, that as some common measure of surface is absolutely necessary to express density of population, the metric hectare (about 2·47, or say 2½ English acres) has been used, according to the frequent resolutions of the different congresses. It is easy to convert this mentally into English acres by dividing the figures by 4 and removing the decimal point one place to the right.

In Table A (Appendix) is given the total number of inhabitants, male and female, of the principal countries in Europe, the extent of surface in hectares, the proportion of females to 1,000 males, and the number of hectares to every 1,000 inhabitants.

It thus appears in the populations of Europe amounting, about the year 1861, to 278,577,000, that in countries in which the sexes were distinguished, the number of males was 125,521,000, and females 127,365,000, or 1,015 females to 1,000 males. The total extent in hectares is given as 937,993,000, or 2,316,843,000 acres, and the average rather more than 3½ hectares (about 8⅝ acres) to each inhabitant.

The extremes of difference in the proportion of the sexes will be noticed in Saxe Coburg, which shows 1,077 females to 1,000 males; and in Greece, which, to the same number of males, only has 916 females. On this point, however, it is of great consequence to bear in mind the smallness of the actual numbers, and also the question whether the country has been sufficiently tranquil and well organised in its statistical departments, to ensure confidence in the accuracy of the facts recorded. This affords a stronger reason for more frequent comparisons in the same form, to allow of any real discrepancies being visible. The countries which contain a smaller proportion of females than males, according to these returns, are Italy, Belgium, the Roman States, and Greece.

As to density of population, the differences are very great indeed. Norway, for instance, for every 1,000 inhabitants, has an extent of 21,363 hectares; Belgium, only 650 hectares; the former being thirty-three times as great as the latter. In the United States, the difference is greater still, the number of hectares being 23,200 to every 1,000 inhabitants, and the population includes in the estimate nearly four millions of slaves.

To understand these differences we require a more minute report on the proportion of productive to unproductive lands, which is essential to the question. Thus, Austria, with a total extent, in 1857, of 66,518,151 hectares, had 100 parts out of 117 productive lands. In Belgium, on 7,564,604 hectares, 100 were estimated as productive out of 103. But these returns are not given for all countries; and even if they were, it is manifest that they would admit of very wide difference in the estimates from the difficulty of defining what is to be considered productive or unproductive. With sufficient capital, land might be brought into fertility in one country which in another would be considered permanently barren.

Great Britain.—M. Quetelet subdivides the population of the United Kingdom into that of England and Wales, Scotland and Ireland, and Islands in the British seas, with the relative proportion of females to males; but as the army is not subdivided in the same way, the total only is correct.

The census of Ireland, which, in 1841, gave 8,175,124 inhabitants, exhibited only 5,798,758 in 1861, very nearly what it was in 1809, from which it steadily increased up to 1845, when it began to decline.

In the Twenty-Eighth Report of the Registrar-General will be found the estimated male and female population of England and Wales, Scotland and Ireland, separately, for every year from the beginning of this century to 1867; but excluding the portion of the army and navy and merchant seamen abroad.

M. Quetelet draws attention to the remarkable increase in the populations of large towns of over 100,000 inhabitants, which took place in England between the years 1841 and 1851, the average increase having been 23 per cent. in that period. The same towns have continued to increase since, as appears by the returns to the middle of the year 1865. In the order of population at that date, they stood as follows:—

Population.	1865. (In 1000's.)
London	3,015,
Liverpool	476,
Glasgow	424,
Manchester	355,
Birmingham	328,
Dublin	318,
Leeds	224,
Edinburgh	174,
Bristol	162,
Salford	111,
Hull	104,
Total	5,691,

In the returns for 1851, Sheffield, Wolverhampton, and Bradford are included in the list; but it is scarcely worth while to give the comparison of numbers, as it is not easy to know if the limits of boundary are precisely the same at the two dates.

Some general details are given of the information furnished by the other States, but it would occupy too much space to analyse them all. It will suffice to give the following table of the total population in each State of the towns comprising more than 100,000 inhabitants, compared with the total population, as indicating, to a certain extent, the commercial activity which it may be reasonably assumed will be found to prevail in some proportion increasing with the density of population. Not to repeat the table of population (A), I have merely inserted the number of the total town population and the proportion per cent. which it bears to the total population.

	Number of Towns.	Population of Towns with More than 100,000 Inhabitants (in 1,000's).	Town Population per Cent. of the Total Population.
England and Scotland	11	4,561,	19·53
Belgium	4	531,	11·72
Netherlands	2	364,	11·06
United States of America....	9	2,623,	8·35
France........	8	2,900,	7·76
Italy	8	1,497,	6·87
Denmark........	1	155,	5·95
Saxony	1	128,	5·76
Roman States........	1	176,	5·63
Portugal	1	174,	4·72
Spain	4	714,	4·56
Prussia	3	814,	4·40
Austria	6	1,204,	3·22
Bavaria	1	148,	3·16
Sweden	1	112,	2·91
Russia	3	961,	1·62

The principal changes in population which have occurred in Europe, since the date given in Table A, have been in Germany, Austria, and Italy. The cession of the Venetian Provinces to the latter power, in 1866, added 2,514,500 hectares and nearly 2,459,000 inhabitants, bringing up the total population of Italy to 24,236,000, and giving 1,176 hectares to every 1,000 inhabitants.

The establishment of the North German Confederation, in 1867, united a number of the small States; and, according to the census of 1864, Prussia, with its 23,581,000 people, and the twenty-one other States, which constitute the confederation, comprise a total population of 29,319,000.*

Austria, after deducting for the Lombardo-Venetian kingdom, is represented, in 1857, by the census of 31st October in that year, as having a population of 32,530,000.

In the Registrar-General's Twenty-Eighth Report, published in 1867, the population of Great Britain (with an area of 77,287,000 statute acres), France (including the three newly annexed departments), Austria, Italy, and Spain, are given to the middle of the year 1865, and may be thus compared with Table A:—

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* From an article in the "National Gazette," of 2nd December, 1867, published at Berlin, it appears that Germany, without Austria, now comprises a population of 38,697,000. Prussia has increased in three years, since 1864, from 23,591,000 to 24,014,000. Bavaria now includes 4,824,000 inhabitants, and Saxony 2,426,000.

	1865. Population in 1,000's.	Acres to a Person.
England and Wales	20,991,	1·78
Scotland	3,136,	6·26
Ireland	5,641,	3·60
United Kingdom	29,768,	2·60
France	37,981,	—
Austria (including Hungary, &c.)	34,676,	—
Italy	22,484,	—
Spain	16,379,	—

Note.—As these figures are official, they may be assumed to represent accurately those populations at recent dates.

II.—*Births.*

The registration of births is not so perfect as one could wish in several countries. In some, the civil registration is still incomplete, and where it is conducted by the religious denominations some omissions must be expected. In seventeen countries the returns of births in the census year were found to exhibit a little excess over the average of the few years preceding, which might be anticipated, from the fact that, in most countries, the population was increasing.

The following table exhibits the ratio of births to every 10,000 of the total population. I have converted M. Quetelet's proportions to every 10,000 of the population, that we may have the same common measure of population for all classes of facts which we here examine:—

Fecundity.—Births to 10,000 *Inhabitants.*

	Census Year.	Several Years.		Census Year.	Several Years.
France	256	255	Norway	356	330
Greece	296	288	Portugal	358	330
Belgium	297	303	Spain	391	366
Hanover	321	304	Austria	383	369
England	341	323	Wurtemburg	373	369
Bavaria	341	325	Prussia	377	398
Sweden	334	326	Saxony	408	412
Netherlands	351	327	Russia	488	412
Denmark	342	329			

The most remarkable rate of fecundity is shown in Russia, and especially in the single year under observation, when it was nearly twice as high as in France. The general average may fairly be taken at about 333 in 10,000, or 3⅓ per cent. England, which, according to these returns was rather below that average, has been increasing since.

By the Registrar-General's last Returns, England, France, and Austria may be thus compared:—

	Births in 10,000 of the Population.		
	England.	France.	Austria.
1861	346	269	395
'65	356	265	391

Both the latter powers have fluctuated between somewhat higher numbers; but in England the increase has been steady since 1860.

By giving the number of births in the following table for the census year, they may, without repetition of figures, be compared with the populations in Table A (Appendix). The total of several years alluded to in the last table varied from three to ten years preceding, and need not be given, as the proportions are sufficiently near by either estimate.

Actual Number of Births in the Census Year 1860.

[For Population, see Table A.]

Russia	2,896,950	Portugal	132,250
Austria	1,435,051	Netherlands	115,569
France	956,875	Denmark	89,186
England and Wales	684,048	Saxony	90,805
Prussia	692,989	Hanover	60,567
Spain	611,609	Wurtemburg	64,291
Bavaria	160,103	Norway	53,074
Belgium	134,187	Greece	32,405
Sweden	133,162		

The total number of births (not including the still-born, except, as is supposed, in Denmark and Spain), was 8,343,121; and, as the total population of these seventeen States was 219,445,000, the average for the census year was 381 in 10,000.

Sexes. Still-born Children.—The results of a single year, as to the proportion of males to females in living children, does not differ much from that of several years, the average of thirteen States being 1,057 males to 1,000 females for one year, and 1,055 on the average of several years; nor are the limits very wide, being from 1,068 in Spain, to 1,047 in Sweden.

But in the still-born, the remarkable fact is observed, that the males exceed the females in the proportion of 1,335 to 1,000, the excess of males amongst children who die in birth being six times as great as the excess of the males in children born alive. And this result is general, since the limits vary only from 1,456 in France to 1,254 in the Netherlands, the latter being nearly 5½ times as great as the lowest excess of males in children born alive.

Another remarkable fact will also be traced in the comparison of the births (Table B, Appendix), that in every country the proportion of male to female births is always much less in illegitimate than in legitimate births. There is but one exception to the rule, and that is in Russia, for the single census year. In all the other cases, whether for one year or the average of several years, the male births, as compared with female births, are fewer amongst the illegitimate children, on an average of several years, in the proportion of 1,038 to 1,057; and in the single census year as 1,038 to 1,061. This result is no doubt in great measure to be attributed to the greater medical skill which is generally obtained in legitimate births, and which is especially needed in the greater risks which medical authorities point out as attending the birth of a male child.

It is probably difficult to obtain with accuracy the number of still-born in illegitimate, as distinguished from legitimate, births. But such an inquiry would be important, as separating the natural causes of the greater losses of males in birth from those which may arise from mere want of proper medical care; or the frequently disheartening circumstances under which the births occur.

The proportion of illegitimate births may be compared with the legitimate births, including both sexes, as follows, on the average of the years observed:—

	Years.	Illegitimate to 1,000 Legitimate Births.
Bavaria	1851–60	279
Saxony	'59–61	182
Hanover	'54–58	114
Austria	'54–57	98
Sweden	'56–60	96
Norway	'51–60	96
Prussia	'59–61	91
Belgium	'51–56	86
France	'51–60	80
England and Wales	'45–60	71
Spain	'58–61	59
Netherlands	'50–59	44
Average	—	87

The average of the periods and of countries appears to be about 87 illegitimate to every 1,000 legitimate births. Belgium, France, England, Spain, and the Netherlands, are below the average, the last country showing the favourable rate of 44 to 1,000, or little more than half the average, whilst Bavaria is at the other extreme, giving for the average of ten years 279, or more than three times the mean rate for all the other countries. Saxony ranks at about two-thirds of this rate.

Seasons.—The variation in the rate of births, as well as deaths, according to the seasons, has been marked in several series of observations. But in order to compare one country with another, it is not sufficient simply to record the births by monthly periods. It is requisite to accompany these facts with the character of the climate, and it would be difficult, at any rate for the present, to obtain comparisons for the same periods, and sufficiently precise to be of any value. We must be content with remarking that in Austria, Belgium, France, the Netherlands, and Sweden, for a series of years, and in Greece for one year, there appears to be a maximum of births in February or March, and a second maximum in September or October, whilst there is one minimum, though less clearly marked, between June and July, and another between November and December. It is probable, however, that the periods of the year no further affect the rate of birth than as they influence the number of marriages, which to a certain extent may depend upon the seasons or particular periods in the year. Thus, M. Wargentin long ago remarked, that many more marriages were contracted during the autumn and winter in Sweden than in the spring and summer, because the harvest produces abundance and the cattle are killed in autumn, so that the bulk of the people are then best able to give the entertainments usual on these occasions. In agricultural countries the harvest, and in manufacturing countries the period of the year at which work is most plentiful and wages highest, would more affect the rate of birth as following that of marriages than mere variations of climate.

III.—*Deaths.*

By classifying the countries in the order of their general rate of mortality deduced from a series of years, we shall form a better idea of the comparison. In Table C (Appendix), therefore, I have given the actual number of deaths in the census year on the population shown in Table A (Appendix), except that the population of England and Wales is taken as 20,066,224. The average rate for each 10,000 of the population is given for the census year as well as for the average of a series of years.

It thus appears that the total deaths in the census year were 5,048,000 on a total population of 217,725,000, or 232 in every 10,000 inhabitants. The fluctuations in a single year are considerable—from 175 in Sweden to more than double, 376, in Russia. But on an average of years the variations fall within narrower limits—from 171 in Norway to 281 in Bavaria. Russia does not give the means of comparison, except for one year. England and Sweden occupy the second best place in the scale, and Austria, Spain, Saxony, and Bavaria not differing much from each other at the other extreme. The estimate for Russia could not reasonably be taken for a single year, nor without reference to the rate of births which we have seen was the highest of all countries in the same year, 488, and the same as Saxony, 412, on an average of years. It seems probable that both these numbers may be wide of the truth, if the census of the population was defective, and it will be well to wait for further comparisons hereafter.

Increase of Population.—The mere estimates of births and deaths separately would lose half their value, if not compared together to ascertain whether the population of any country is stationary, or at what rate it is increasing or diminishing. In Table D (Appendix) the proportions have been computed on the average of the years under observation, and the ratio of births to deaths shown in the order beginning with the greatest excess of births.

Norway exhibits by far the largest excess of births over deaths, the excess being 93 upon every 100 deaths, and France the smallest, for the period referred to, being only 11 in excess on 100 deaths. England and Wales will be found in the fourth place, having an excess of 53 births over every 100 deaths, and this rate very nearly corresponds with the rate observed in the returns for 1865. The effect of this excess on the prosperity of the country can only properly be estimated in connection with the total population, the improveable area of the country, or the social conditions under which such an excess of population finds the means of subsistence, or the sanitary conditions, under which young children may perish at an early age or grow up to add to the working strength of the nation.

Mortality according to the Sexes.—The ratio of deaths amongst males as compared with females, is seen in the following table for the single census year, and for the series of years previously quoted. Since more males are born than females, it follows that eventually the same proportion of deaths must be in excess on the side of males. But it does not follow that the observations of a particular country, or a particular series of years, would correspond in these ratios, since the totals may be affected by emigration, by wars, which might carry off a larger proportion of males in a brief period, or by unhealthy occupations, which may take an undue proportion of males at particular ages after birth. The rate of death amongst females may be expected to be more uniform, and consequently the ratios, though eventually corresponding with those of births, may never be so during the particular years of observation.

The following shows the proportion of male to female deaths in the census year, and in the series of years already noticed.

Male Deaths to 1,000 *Female.*

	Census Year.	Average of a Series.		Census Year.	Average of a Series.
Greece	1,102	—	Sweden	1,035	1,032
Saxony	1,077	1,076	Norway............	1,028	1,028
Prussia	1,067	1,074	England	1,022	1,026
Spain.................	1,062	1,068	Netherlands	1,027	1,016
Austria	1,053	1,053	France	1,013	1,011
Denmark	1,075	1,051	Hanover	1,005	1,002
Bavaria............	1,076	1,043	Belgium	1,024	989
Russia	1,041	—	Portugal	970	—

Seasons.—As a general rule, it may be noticed that the summer period shows the smallest number of deaths and the winter the highest. There is also a second maximum about the beginning of autumn, and soon afterwards a second minimum. In different countries, however, the facts collected by M. Quetelet fluctuate in different months, especially as to the minimum rates in Austria, Belgium, France, Netherlands, Sweden, Norway. By dividing the year into the four seasons the difference of mortality is sufficiently marked.

Deaths by Months.

	Austria.	Belgium.	France.	Netherlands.	Sweden.	Norway.
	1856-67.	1851-60.	1853-60.	1850-59.	1856-60.	1851-60.
Winter— Jan., Feb., March	601,001	377,429	1,985,204	217,340	110,181	69,932
Spring— April, May, June	495,068	344,912	1,724,810	192,218	102,402	67,340
Summer— July, August, Sept.	469,278	319,102	1,893,851	192,943	89,762	57,172
Autumn— Oct., Nov., Dec.	524,598	329,754	1,787,089	211,471	102,484	60,501
Total	2,089,945	1,371,197	7,390,954	813,972	404,829	254,945

Tables of Mortality.—The census of the population at any given period, classed under ages, together with the returns of deaths for a few years before and after the census year, allow of tolerably accurate tables being constructed of the number of survivors at every age, from birth to extreme old age. It requires some caution, however, and knowledge of the subject to make allowance for the causes which affect the rate of increase of a population. Thus the defects in the registers of births or deaths, the ages of emigration or immigration, the proportion of the people in the army or navy in service out of the country, or of merchant seamen abroad, require careful consideration in comparing the number of deaths with the number living at certain ages. In some respects the statistics of assurance companies contain the most minute and accurate facts for reasoning; but as they, as well as the returns of friendly societies, refer either to particular classes or occupations, or to lives selected out of a general class, they cannot take, for national purposes, the place of tables carefully prepared from the mortality of the whole population.

In England we have three tables by Dr. Farr. No. 1, deduced from the census for 1841, and the mortality for the census year. No. 2, from the same census, but the mortality for the seven years, three before and three after the census year. No. 3, from a comparison of the two censuses, 1841 and 1851, and the mortality for seventeen years. Besides these, we have the healthy life table, deduced from sixty-three healthy districts in England and Wales, in which the annual mortality did not exceed 17 per 1,000 living on the population of 1851, and the deaths in the five years, 1849 to 1853. We are also indebted to Dr. Farr for the methods of application of the tables to numerous important questions in political arithmetic, and a complete collection of formulæ for the ordinary cases of life contingencies.

In M. Quetelet's collection will be found several mortality tables for other countries; one for Belgium, by himself; for Sweden, by Dr. Berg; for the Netherlands, by Dr. Baumhauer; for France, by M. Legoyt; and for Bavaria, by Dr. De Hermann. At the early periods of life, under five years, considerable discrepancies will be found in different countries, especially in France, Bavaria, and the Netherlands, arising probably from the deaths having been calculated on a stationary population; but at twenty years of age and upwards, the six tables differ very little from each other.

A wider difference is noticed if the observations are separated for the sexes. Thus, at birth the probable duration of life amongst males varies from 22 years in Bavaria to 48 years in Sweden, mean 35·5 years; at 20 years of age the difference is only from 39 years in France to 43 years in England, mean 41 years. Amongst females the variation is only, at birth, from 32 years in Bavaria to 55 years in Sweden, mean 41·3 years; and at 20 years of age, from 41 years in Bavaria to 46 years in Sweden, mean 43·3 years.

This subject is too wide and too important to enter into it further in the brief limits of this notice. I proceed to the last general feature of the summary of observations.

IV.—*Rate of Marriages.*

The accuracy of the marriage registers depends to a certain extent on the laws of the country, whether, in fact, marriage is treated as a civil or religious institution, or whether there are any other circumstances which control the registration. Thus, it will be noticed in Table E (Appendix) that, on an average of years, the proportion of marriages in every 10,000 of the population is only 62 in Bavaria; whilst in Saxony the average was 85, and in Russia, for the single year of the census, it appears as 105. But the explanation given is, that to obtain an authorisation to marry, in Bavaria, the intended husband must show that he has certain means of living. This condition is often dispensed with, and the civil marriage does not take place, thus accounting for the small proportion of marriages and the relatively large number of illegitimate births.

In the above table the census year and the average of years is the same as that given in Table A for the same countries. I have not, therefore, repeated the numbers of the population, which will be found in that table. For the sixteen States, the total population is 217,725,000, and the marriages in the census year being 1,883,959, shows about 87 in every 10,000 of the population, on the average of these countries. This is considerably above the average of the series of years in any one country, and shows that the census year was either exceptional or that the rate of marriage is generally increasing in Europe. It must be remarked, that Russia, with its large number and high proportion of marriages, considerably swells the average for the single year, and that further information as to the actual population of this country would be very desirable.

Omitting Bavaria at the one extreme, and Russia at the other, we should find the average of the census year reduced to 80 in 10,000. At this rate, which was the average rate of England and Wales for a series of years, Hanover, England, Spain, Saxony, Netherlands, Denmark, Austria, and Norway, were above the average in the year in the order recorded, and Prussia, France, Belgium, Sweden a little below.

Seasons.—The periods of the year are liable to have the regularity of numbers in marriages broken by other disturbing causes, which do not affect the deaths. For instance the season of Lent, restraining the number of marriages to a considerable extent in Roman Catholic countries, throws naturally an increased proportion just before or just after that period. In France, Austria, Belgium, and Netherlands, there is a very marked minimum in the month of March, with a proportionate increase in February, and a still more decided minimum in the month of December, following a maximum in November in all the countries named. Sweden alone shows a maximum in April and December.

V.—*General Observations.*

With the view of affording some more recent dates for a comparison of the leading facts, the following, quoted from the Registrar-General's Twenty-Eighth Report, will be interesting:—

	Estimated Population in 1865.	In every 10,000 Inhabitants in 1865.		
		Marriages.	Births.	Deaths.
United Kingdom	29,768,000	84	354	231
France	37,981,000	79	265	242
Austria	34,676,000	80	391	310
Italy	22,484,000	92	385	299
Spain	16,379,000	—	375	329

It is impossible in so short a notice to draw attention to the many points of interest, which the large mass of materials referred to may elucidate by comparison and reduction to a common standard of observations. The proportion of the population existing at different ages of the sexes, and the rate of marriages at different ages amongst bachelors, widowers, spinsters, and widows, the town and country populations, professions or occupations, number of inhabitants to a house or family, &c., if not given in all the returns, will be found in some for comparison with others.

By extending the calculations to these classes of facts for every 10,000 of the population, the divergencies or defects of observation will be discovered, and we may reasonably expect that the distinguished official colleagues of M. Quetelet, who have undertaken so much labour in order to respond to his urgent and practical appeal, will gladly introduce such improvements as will give unity of method to future researches. The work they have already done is worthy of the enlightened Governments they represent, and their co-operation has tended, and will tend still more to advance the peaceful and social progress of all European countries.

APPENDIX.

Table A.—*Showing the Population, Male and Female, and the Territorial Extent of the Principal States of Europe, the Proportion of Females to Males, and the Extent of Land to each Inhabitant.*

States in Europe.	Years of Census.	Population (in 1,000's).			Extent in Hectares (in 1,000's).	Females to 1,000 Males.	Extent in Hectares to each 1,000 Inhabitants, 1 Hectare equal 2½ Acres nearly.
		Males.	Females.	Total.			
Russia in Europe	1858	29,351,	29,949,	59,300,	477,888,	1,020	8,059
Austria	'57	18,684,	18,767,	37,451,	66,518,	1,004	1,776
France	'61	18,645,	18,741,	37,386,	53,028,	1,001	1,418
Great Britain and Ireland	'61	14,380,	14,941,	29,321,	31,729,	1,039	1,082
Italy	'61	10,897,	10,880,	21,777,	25,932,	998	1,191
Prussia	'61	9,212,	9,279,	18,491,	28,955,	1,007	1,566
Spain	'60	7,752,	7,907,	15,659,	50,704,	1,020	3,244
Bavaria	'61	2,315,	2,375,	4,690,	7,565,	1,026	1,613
Belgium	'56	2,272,	2,258,	4,530,	2,946,	994	650
Sweden	'60	1,875,	1,985,	3,860,	39,924,	1,059	10,344
Portugal	'61	—	—	3,693,	8,600,	—	2,328
Netherlands	'59	1,616,	1,677,	3,293,	3,284,	1,038	997
Roman States............	'53	1,600,	1,524,	3,124,	4,129,	953	1,338
Denmark....................	'60	1,297,	1,308,	2,605,	5,838,	1,009	2,241
Switzerland................	'60	1,236,	1,274,	2,510,	4,142,	1,031	1,650
Saxony........................	'61	1,089,	1,136,	2,225,	1,501,	1,044	674
Hanover	'61	944,	944,	1,888,	3,846,	1,001	2,037
Wurtemburg	'61	830,	891,	1,721,	1,945,	1,075	1,130
Norway	'55	730,	760,	1,490,	31,832,	1,040	21,363
Greece........................	'61	567,	530,	1,097,	4,543,	933	4,142
Duchy of Saxe Meiningen	'61	84,	88,	172,	236,	1,047	1,369
Duchy of Saxe Altenbourg	'61	67,	70,	137,	132,	1,032	960
Duchy of Saxe Gotha	'61	55,	57,	112,	142,	1,047	1,262
Duchy of Saxe Cobourg	'61	23,	24,	47,	55,	1,077	1,168
		125,521,	127,365,	252,886, 3,693,	855,414,	—	—
				256,579,			

States in Europe.	Year of Census.	Population (in 1,000's).	Extent in Hectares (in 1,000's).	Extent in Hectares to each 1,000 Inhabitants.
Free Towns and smaller principalities of Germany	1860-61 or 1862	6,209,	7,697,	1,011
Turkey	1844	10,500,	55,679,	3,398
Servia	'44	1,100,	6,038,	5,489
Danubian Principalities	'44	4,000,	12,559,	3,140
Montenegro	'44	130,	494,	3,800
Waldeck (principality)	'61	59,	112,	1,907
Total		278,577,	937,993,	—

TABLE B.—*Births in the Census Year, distinguishing the Sexes in Legitimate, Illegitimate, and Still-born.*

	Census Year.	Legitimate.		Illegitimate.	
		Male.	Female.	Male.	Female.
Russia	1858	1,421,325	1,355,036	61,907	58,684
Austria	'57	664,194	623,763	75,514	71,580
France	'60	454,462	433,116	35,184	34,113
England and Wales	'60	327,640	312,715	22,159	21,534
Prussia	'61	340,848	322,016	30,919	29,235
Spain	'61	298,187	279,347	17,447	16,678
Bavaria	'60	63,287	59,391	18,990	18,435
Belgium	'60	69,107	65,089	5,261	5,211
Sweden	'56–60 mean	58,686	55,915	5,581	5,465
Portugal	—	—	—	—	—
Netherlands	1850–59 mean	52,911	50,140	2,810	2,236
Saxony	1861	39,608	37,302	7,064	6,831
Denmark	—	—	—	—	—
Hanover	1858	28,040	26,111	3,237	3,179
Norway	'60	25,126	23,515	2,260	2,175
Greece	'61	16,656	15,518	119	112

	Census Year.	Total.		Still-born.		
		Male.	Female.	Male.	Female.	Total.
Russia	1858	1,483,230	1,413,720	—	—	—
Austria	'57	739,708	695,343	13,546	10,045	23,591
France	'60	489,646	467,229	26,264	18,034	44,298
England and Wales	'60	302,834	290,588	—	—	—
Prussia	'61	354,788	338,201	16,979	13,050	30,029
Spain	'61	315,584	296,025	—	—	—
Bavaria	'60	82,277	77,826	3,228	2,339	5,567
Belgium	'60	74,368	70,300	3,995	2,985	6,980
Sweden	'56–60 mean	64,267	61,380	—	—	—
Portugal	—	60,951	57,519	—	—	—
Netherlands	1850–59 mean	59,307	56,262	3,628	2,894	6,522
Saxony	1861	46,672	44,133	2,316	1,762	4,078
Denmark	—	46,103	43,083	—	—	—
Hanover	1858	31,277	29,290	1,358	1,062	2,420
Norway	'60	27,386	25,688	1,341	997	2,338
Greece	'61	16,775	15,630	—	—	—

TABLE B *Contd.—Proportion of Male Births to* 1,000 *Female.*

	Legitimate.		Illegitimate.		Total.		Still-born.		Average Years.
	One Year.	Average.	One Year.	Average.	One Year.	Average.	One Year.	Average.	
Russia	1,049	—	1,055	—	1,049	—	—	—	—
Austria	1,065	1,062	1,055	1,053	1,064	1,061	1,348	—	1854-57
France	1,049	1,054	1,031	1,033	1,048	1,053	1,456	—	'51-60
England and Wales	1,048	—	1,029	—	1,042	1,049	—	—	'41-50
Prussia	1,059	1,058	1,057	1,051	1,049	1,048	1,301	—	'59-61
Spain	1,067	1,069	1,058	1,041	1,066	1,068	—	—	'58-61
Bavaria	1,066	1,057	1,030	1,038	1,057	1,053	1,380	—	'51-60
Belgium	1,062	1,055	1,010	1,025	1,058	1,052	1,339	—	'51-60
Sweden	1,050	1,051	1,021	1,021	1,047	1,047	—	—	'56-60
Portugal	—	—	—	—	1,060	—	—	—	—
Netherlands	1,055	1,055	1,033	1,033	1,054	1,054	1,254	—	1850-59
Saxony	1,062	1,055	1,034	1,038	1,058	1,058	1,315	—	'59-61
Denmark	—	—	—	—	1,070	1,062	—	—	'55-59
Hanover	1,074	1,065	1,019	1,036	1,068	1,062	1,279	—	'54-58
Norway	1,069	1,052	1,040	1,049	1,066	1,052	1,345	—	'51-60
Greece	1,074	—	1,062	—	1,073	—	—	—	—
Mean	1,061	1,057	1,038	1,038	1,057	1,055	1,335	—	

TABLE C.—*Number of Deaths in the Census Year, and Proportion to every* 10,000 *of the Population in the Census Year, and on an Average of Years.*

States.	Census Year.	Number of Deaths in the Census Year.			Deaths to 10,000 Inhabitants.		Years of Average.
		Male.	Female.	Total.	Census Years.	Average of Years.	
Norway	1860	13,889	13,509	27,398	184	171	1851-60
England	'60	*186,459	*182,527	422,721	211	210	'51-60
Sweden	'60	34,329	33,173	67,502	175	210	'56-60
Denmark	'59	29,303	27,270	56,573	217	214	'55-59
Belgium	'60	46,980	45,891	92,871	205	226	'51-60
Portugal	'60	37,815	39,001	76,816	208	—	—
Hanover	'58	22,148	22,041	44,189	234	227	1854-58
France	'60	393,381	888,254	781,635	209	232	'57-60
Greece	'61	12,041	10,928	22,969	210	—	—
Netherlands	'59	52,229	50,838	103,067	313	247	1850-59
Prussia	'61	256,941	240,700	497,641	269	262	'59-60
Austria	'57	521,758	495,269	1,017,027	272	275	'49-57
Spain	'61	215,198	202,566	417,764	267	276	'58-61
Saxony	'61	34,931	32,442	67,373	303	278	'59-61
Bavaria	'60	63,718	59,198	122,916	262	281	'51-60
Russia	'58	1,137,272	1,092,464	1,229,736	376	—	—
				5,048,198			

* Total in 1850, 368,986.

TABLE D.—*Showing on an Average of Years the Ratio of Births to Deaths.*

	Years of Observation.	Average Annual Number of		Ratio = Births. / Deaths.
		Births.	Deaths.	
Norway	1851–60	49,230	25,506	1·93
Portugal	'61	132,250	76,816	1·72
Sweden	'56–60	125,647	80,966	1·55
England and Wales	'51–60	647,165	421,071	1·53
Denmark	'55–59	85,673	55,853	1·53
Saxony	'59–61	91,677	61,774	1·48
Prussia	'59–61	702,676	484,068	1·45
Greece	'60–61	31,630	22,969	1·38
Austria	'54–57	1,379,781	1,030,659	1·34
Belgium	'51–61	137,120	102,327	1·34
Hanover	'54–58	57,245	42,762	1·34
Spain	'58–61	571,886	432,067	1·32
Netherlands	'50–59	107,598	81,397	1·32
Russia	'58	2,896,950	2,229,736	1·30
Bavaria	'51–60	152,236	131,947	1·16
France	'51–60	953,593	866,722	1·11

TABLE E.—*Number of Marriages in the Census Year, and Proportion to every* 10,000 *of the Population in the Census Year, and on an Average of Years.*

	Number of Marriages.	In 10,000 Inhabitants.	
		Census Year.	Average of Years.
Bavaria	32,221	68	62
Portugal	23,584	64	—
Greece	7,175	65	—
Belgium	35,112	78	74
Sweden	29,839	78	76
Norway	12,009	81	77
Spain	130,731	83	77
France	288,936	78	77
Netherlands	27,007	82	78
Austria	301,524	81	79
England and Wales	170,156	85	80
Denmark	21,390	82	81
Prussia	146,992	79	81
Hanover	16,204	88	82
Saxony	18,517	53	85
Russia	622,562	105	—
	1,883,959	—	—

On the FINANCES *of the* UNITED STATES *of* AMERICA, 1861-67.

By LEONARD H. COURTNEY, ESQ.

[Read before the Statistical Society, May, 1868.]

ON the 4th March, 1861, Mr. Lincoln was admitted to office as President of the United States. The outstanding public debt of the Union was at that time $68,482,686, or 13,696,537*l.*, at the exchange of 4*s.* per dollar, and was made up of the following particulars:—

Title.	Time to Mature.	Outstanding.	Date of Authorising Acts.
		$	
Loan of 1842	20 years	2,883,364	11th July, 1841 15th April, '42
„ '46	10 „	1,000	22nd July, '46
„ '47	20 „	9,415,250	28th January, 1847
„ '48	20 „	8,908,342	31st March, 1848
Texas indemnity	15 „	3,461,000	9th September, 1850
Old funded debt	demand	114,119	—
Treasury notes prior to 1857	„	104,812	—
„ 23rd December, 1857	1 year	4,636,800	23rd December, 1857
Loan of 1858	15 years	20,000,000	14th June, 1858
„ '60	10 „	7,022,000	22nd „ '60
Treasury notes, 1860	1 year	10,000,000	17th December, 1860
Loan of February, 1861	20 years	1,936,000	8th February, '61
		68,482,686	

This amount is very small, but it may be observed that more than half of it was contracted under the four years of Mr. Buchanan's presidency, which were years of repeated deficits.

The census returns from 1820 downwards, furnished the following facts representing the national growth:—

	Population.		Decennial Increase.	Valuation (Real and Personal) Slaves excluded.
			Per cnt.	$
1820	9,638,131	—	33·13	—
'30	12,866,020	—	33·49	—
'40	17,069,453	—	32·67	—
'50	23,191,876	L 15,924,122 R 7,267,754	35·87	6,174,349,829*
'60	31,429,891	L 22,328,133 R 9,101,758	35·52	14,126,523,676†

* L (loyal) 4,728,247,586 R (rebel) 1,446,102,243.
† L 10,659,418,009 R 3,467,105,667.

The national income was derived entirely from customs duties and land sales, but the amount received from the latter scarcely sufficed to meet the annual charge for surveying the public domains. No internal or direct tax had been levied since the year 1816; a fact which may be partly explained by a reference to the second article of the constitution, which prescribes that "Representatives and "direct taxes shall be apportioned among the several States which "may be included within this union, according to their respective "numbers."

The customs duties of the union had been received at different times under many tariffs, some particulars of which are given in Appendix A.

The income and expenditure for the four years 1857-60 inclusive were—

	Income.	Expenditure.
	$	$
Year ending 30th June, 1857	68,631,514	66,627,405
" '58 ...	46,557,570	73,943,893
" '59	53,405,071	68,965,070
" '60 ...	56,064,608	63,154,832

The circulation of the union at the beginning of 1861 consisted of gold and silver, and notes issued under the authority of the several States by banks established within them. The amount of paper money in circulation on the 1st January, 1861, was $202,000,000, of which $150,000,000 had been issued in the loyal States, and about $20,000,000 in the border States. The coin in circulation was estimated at $275,000,000.

On the 2nd March, 1861 (two days before the admission of Mr. Lincoln to office), an act was passed authorising a loan of $10,000,000, to be redeemable at any time after ten years on three months' notice, and at any time after twenty years without notice. The interest was not to exceed 6 per cent., and the loan was not to be issued below par. In case the proposals were not satisfactory, the president was authorised to issue treasury notes, bearing interest at 6 per cent., which notes, it was enacted, "shall " be received in payment for all debts due to the United States " when offered, and in like manner shall be given in payment for " any sum due from the United States, *when payment in that mode is " requested by the person to whom payment is to be made*, or for their " par value in coin. And the faith of the United States is hereby " pledged for the due payment of the interest and the redemption " of the principal of the stock or treasury notes, which may be " issued under the authority of this act."

The same act imposed new duties (see Appendix A), some of which may be advantageously stated here:—

Raw and clayed sugars, three-fourths of a cent per pound.
Refined sugar, 2 cents per pound.
Sugarcandy, 4 „
Brandy, first proof, $1 a gallon } and so on in proportion to
Other spirits, „ ·40 „ } strength.
Liqueurs, ·50 a gallon.
Bay rum, ·25 „
Wines, 40 per cent. *ad valorem*.
Spirituous liquors not enumerated, 33⅓ per cent. *ad valorem*.
Beer, in bottles, ·25 a gallon.
„ not „ ·15 „
Cigars from ·20 to ·60, and 10 per cent. *ad valorem* per pound.
Tobacco, unmanufactured, 25 „
„ manufactured, 30 „
Iron, rates estimated at 20 per cent. and upwards *ad valorem*.

It will be observed that most of the articles comprised in this, the Morrill, tariff, as in all previous tariffs, were articles produced within the States; and the tariff, though defended on the ground of the insufficient revenue of the union, was of a character fitted rather to protect home manufactures than to increase the customs' receipts.

The financial situation at the entrance of Mr. Lincoln into office may be thus described; the available revenue being received from customs only, and being less than the annual expenditure, additional protective duties had just been sanctioned.

The formal secession of South Carolina had occurred in December; of Mississippi, Alabama, and other Southern States followed in January; and on the 12th April the bombardment of Fort Sumter began. On the 13th the garrison capitulated, and on the 15th President Lincoln issued a proclamation calling for 75,000 volunteers for three months to suppress insurrectionary combinations, and commanding the combinations to disperse. In the same proclamation the president summoned an extra session of Congress on the 4th July following. On the 17th the Virginia Convention passed an ordinance of secession; and on the 19th President Lincoln issued a second proclamation declaring a blockade of the Southern ports.

The expenses of the war, up to the meeting of Congress, were partly defrayed by the negotiation of a loan authorised by an act of the previous February, which was issued in 6 per cent. bonds, at an average discount of 12 per cent., partly by the issue of treasury notes, partly by loyal contributions from the separate States and cities of the North, and for the rest debts were freely incurred by the executive Government. The monthly customs receipts at the New York Custom House, where two-thirds of the customs' revenue were ordinarily collected, showed that the new tariff had been followed by a decline in income.

	1859.	1860.	1861.
	$	$	$
January	3,478,471	3,899,166	*2,050,202
February	3,328,688	3,378,043	*2,528,736
March	3,164,011	3,477,545	*2,489,926
April	3,212,060	2,444,268	†1,643,262
May	4,014,520	2,466,463	979,145
June	3,314,429	2,024,193	1,894,064
July	4,851,246	4,504,066	2,069,591
August	4,243,010	4,496,243	‡1,558,824
September	2,908,506	3,038,803	1,642,382
October	2,318,750	2,632,078	1,672,617
November	2,157,154	1,798,749	1,851,384
December	2,843,388	1,171,826	—
	39,834,233	35,331,443	—

* Tariff of 1857. † March, 1861. ‡ 5th August.

On the 4th July Congress met.

The funded debt at the end of the year (30th June) had become $90,867,828.

The income and expenditure of the past year may be thus abstracted:—

Income, Year ending 30th June, 1861.	$	$
***Customs*—**		
1st quarter	16,119,831	
2nd „	8,174,167	
3rd „	9,772,574	
4th „	5,515,552	
	39,582,125	
Land sales	870,658	
Miscellaneous	892,199	
Total revenue		41,344,983
***Loans under*—**		
Act, 22nd June, 1860	7,022,000	
„ 8th February, 1861	16,339,966	
***Treasury Notes*—**		
Act, 22nd June, 1860 „ 2nd March, '61	2,274,093	
„ 17th December, 1860	10,010,900	
„ 8th February, 1861 .... „ 2nd March, 1861	6,214,750	
Total loans and notes		41,861,709
Total receipts		83,206,693

Expenditure, Year ending 30th June, 1861.		$	$
Legislative, executive, judicial, &c.		6,156,199	
Foreign intercourse		1,142,973	
Miscellaneous, including—			
Postal deficiency	4,064,234		
Mail expenses, subsidies, &c.	656,660		
Mail services, Congress, and Government	450,000		
Building post offices, &c.	445,310		
Customs expenses collection	2,834,764		
Customs drawbacks	1,404,690		
Customs buildings	364,631		
Lighthouses, &c.	917,640		
Expenses collecting revenue land sales	211,734		
Surveying public lands	135,255		
Other expenses land revenue	—		
Census expenses	911,614		
&c. &c. &c.		15,888,030	
Interior Department (Indian, &c.)		3,760,022	
War „		22,981,150	
Navy „		12,428,577	
			62,356,953
Interest on public debt		4,000,173	
Redemption of stock and payment of treasury notes		18,221,708	
			22,221,881
Total expenditure			84,578,834

The report of Secretary Chase contemplated an aggregate expenditure for the year 1861-62 of $320,000,000; and he proposed that $80,000,000 of this (representing the normal expenditure of the union, and $5,000,000 by way of sinking fund) should be obtained from revenue, and $240,000,000 should be levied by loans and treasury notes. The secretary asked, however, for authority to raise $250,000,000, viz.:—

$	
100,000,000	in 7·30 three-year notes.
100,000,000	„ 7 per cent. coupon bonds, thirty years to run.

and—

$50,000,000 in 3·65 one-year notes, of $10 and $20 each, convertible into 7·30 notes, or not bearing interest, and payable on demand.

In order to obtain the revenue he desired, he recommended the imposition of additional duties on sugar and new duties on coffee and tea, which he estimated would produce $20,000,000, and with some minor alterations would raise the revenue to $60,000,000; and he proposed the imposition of a direct tax—

	$	$
Either one-eighth per cent. on all the real and personal property in the union, viz.	16,102,934,116	20,128,667
Or one-fifth per cent. on all the real and personal property in non-seceding States	10,900,758,007	21,801,156
Or three-tenths per cent. on realty only in non-seceding States	7,630,530,603	22,891,590

Or the adoption of some system of internal duties, which he held might be collected more cheaply than direct taxes, and might be made to bear mainly on articles of luxury.

In part performance of the recommendations of Mr. Chase, an act was passed (approved on 17th July, 1861), authorising him to borrow $250,000,000 within twelve months; (1) in bonds, irredeemable for twenty years, bearing interest not exceeding 7 per cent.; or (2) in notes, not less than $50, redeemable after three years, bearing interest at 7·30 per cent. The secretary was also authorised to issue, in exchange for coin, as part of the above loan, or to pay for salaries and duty, treasury notes of less than $50, payable in one year from date, with interest at 3·65 per cent.; or payable on demand, with interest, provided that the total amount of notes not bearing interest should not exceed $50,000,000. The secretary was authorised to negotiate any portion of the loan, not exceeding $100,000,000, in Europe, and to fix the rate of exchange for payment of principal and interest in Europe. The ninth section runs, "The "faith of the United States is hereby solemnly pledged for the "payment of the interest and redemption of the principal of the "loan authorised by this act."

On 5th August, 1861, an act was passed authorising, among others, the following additional and new rates of duty:—

Sugars, raw and below No. 12	2	cents per pound.	
„ above 12, but not refined	2½	„	
„ refined	4	„	
„ candy	6	„	
Tea (first time of imposition)	15	„	
Coffee „	4	„	(See App. A.)

The several direct taxes indicated by the secretary were manifestly inconsistent with the constitutional provision, and none of them were adopted; but instead, the last-mentioned act of the 5th August imposed a direct tax of $20,000,000 on the States, apportioning it according to the constitutional law; but as the seceding States were included in the apportionment, and the loyal States were allowed to repay themselves the advances they had previously made, very little of this loan was brought into the treasury.

The same act imposed an income tax, from the 1st January succeeding, at the rate of 3 per cent. on excess of all incomes of residents in the United States over $800; and 5 per cent. on all incomes arising in the States of citizens resident abroad; proviso in each case that incomes derived from United States' securities should be taxed at 1½ per cent., and no more. It is not apparent by what reasoning this income tax, and the income taxes which have followed, have been reconciled with the constitution.

On the same day a second act was passed, authorising the secretary of the treasury to issue 6 per cent. bonds, payable at the pleasure of the United States twenty years after date, and to deliver same in exchange to any holder of the treasury notes issued under authority of act of 17th July, 1861, desiring the exchange; and the same act authorised the secretary to sell for any portion of the loan authorised by act of July, bonds payable not more than twenty years after date, bearing interest not exceeding 6 per cent.; at any rate not less than the equivalent of par for 7 per cent. bonds authorised by said act.

On the 6th August Congress adjourned.

Of the loans authorised by the act of 17th July, the associated banks of New York, Philadelphia, and Boston took—

$		
50,000,000	in three years 7-30s on the 19th August, and	
50,000,000	„	1st October.

These bonds were taken at par, but as the banks could not negotiate them as quickly as they had hoped, they took, on the 1st December, a third instalment of $50,000,000, in 5-20s, 6 per cent., at a rate equivalent to 7 per cent. The amount (including allowance for interest accrued) paid the treasury was $45,795,478. Meanwhile the treasury had issued a considerable portion of the $50,000,000 demand, or currency notes, authorised by act of July.

On the 1st December the debt was $267,540,035 an increase since the 1st July of $176,672,207, accounted for by the issue of 7-30s, and 5-20s, and of demand notes.

Congress met for its ordinary session on the 2nd December, and the consideration of the financial situation was pressed upon them by the president and the secretary of the treasury. The serious character of the struggle had by that time become manifest, and the necessity of raising a larger income by taxation was recognised. On the one hand the customs' receipts had fallen much below Mr. Chase's anticipations, and he was constrained to reduce his estimate of revenue from existing sources to $55,000,000; and on the other, the military estimates, based on a force of 300,000 men, were insufficient for an army of 550,000.

The additional appropriations made necessary by this increase, amounted to 214,000,000. Under these circumstances the secretary suggested that the direct tax should be raised so as to produce 20,000,000 from the loyal States; and that excise duties on spirits and tobacco, a legacy duty, stamps, and a tax on bank notes, should be imposed, to produce $20,000,000 more; and he thought that the income tax might be modified so as to bring in $10,000,000. He further recommended additional duties on tea, coffee, and sugar, which were imposed. (Tariff, 25th December, 1861, Appendix A.)

If all his proposals were adopted the revenue of the year would be $90,000,000, and the secretary apologised for the largeness of the sum. With reference to the tax on bank notes, Mr. Chase suggested the creation of a national currency. There were two ways of doing this. The first was the gradual withdrawal from circulation of the notes of private corporations, and the substitution for them of United States' notes payable in coin on demand; but to this plan there were great objections, which he thus reviewed: "The temptation, especially great in times of pressure and danger, "to issue notes without adequate provision for redemption beyond "means, however carefully provided and managed; the hazard of "panics . . . ; the risk of a depreciated, depreciating, and "finally worthless, paper money; the immeasurable evils of dis-"honoured public faith and national bankruptcy." The second plan contemplated the preparation and delivery to approved associations of notes prepared for circulation under national direction, and to be secured, as to prompt convertibility into coin, by the pledge of United States' bonds and other needful regulations. It will be seen that the latter plan was ultimately adopted.

The following notes summarise the remainder of the secretary's report:—

	$
The revenue for the quarter ending 30th September, had proved to be	9,809,731
Estimate for remaining three quarters	27,000,000
The sums realised by loans to 1st December	197,242,588
Direct tax (estimate)	20,000,000
Unused borrowing powers	75,449,675
Available resources	329,501,994
Expenditure, first quarter, actual	78,239,733
Authorised appropriations	302,035,761
Appropriations asked for	143,130,927
Demands	543,406,422

showing an apparent deficiency of $213,904,427, but of this the secretary thought no more than $200,000,000 would be required in the year.

For the year 1862-63, supposing the war was not, as he hoped, brought to an auspicious termination before midsummer 1862, the following estimates might be hazarded:—

		$
Civil list		23,086,971
Interior		4,102,962
War		360,159,986
Navy		45,164,924
Debt redemption	2,883,364	
Interest	39,932,696	
		42,816,060
Aggregate expenditure		475,331,245
Customs	45,800,000	
Direct tax	20,000,000	
Internal duties (including income tax)	30,000,000	
		95,800,000
Deficiency		379,531,245

Recapitulating, the following amounts would be required by loans—

	$
1861-62, balance of authorised loans	75,449,675
'61-62, to be raised under new enactments	200,000,000
'62-63, „ „	379,531,245
	654,980,920

On 1st July, 1860, public debt was	64,769,703
„ '61, „	90,867,828
„ '62, „ would be	517,372,802
„ '63, „ „	897,372,802

The statements of the secretary did not inspire confidence, and the public mind was disturbed by the affair of the "Trent" then pending. On the 17th December the associated banks mentioned resolved that they would not suspend specie payments, but a rapid withdrawal of specie ensuing they did suspend specie payments on the 30th of the same month.

The debt continued to increase with great rapidity, and in January Mr. Spaulding, as chairman of committee of ways and means, reported the existing debt at $326,764,602, including $50,000,000 of demand notes issued. In addition to this he stated that $100,000,000 were due to contractors, and he estimated further expenses up to 1st July at $243,235,387.

The prices of the stocks (6 per cents. were at 87 specie and 90½ paper) did not encourage an attempt to issue more, and it was proposed to issue $150,000,000 in demand notes, not less than $5 each, making them legal tender, but of these $50,000,000 should be in lieu of the notes of July, 1861, which were payable in coin; and also to issue $500,000,000 6 per cent. stock, for funding of those notes. On the 21st June, 1862, a joint resolution was approved declaring that a tax should be imposed which, with the tariff on imports, should secure an annual revenue of $150,000,000. On the 12th February a short act was approved authorising the secretary to issue $10,000,000 in demand notes in addition to the $50,000,000 authorised by the act of 17th July; and this temporary expedient was immediately followed by an elaborate bill, embodying the secretary's recommendations.

The Senate amended the proposed measure by making the interest on the 5-20s payable in coin, and by appropriating customs' revenues for this purpose and for a sinking fund.

The act was approved on the 25th February, 1862, and as it was the first act formally authorising inconvertible paper, it may be proper to give a somewhat exact account of its provisions.

It authorised the secretary of treasury to issue on the credit of the United States $150,000,000 United States' notes, not bearing interest, payable to bearer at the treasury of the United States, and of such denominations as he might deem expedient, not less than $5 each; provided, however, that $50,000,000 should be in lieu of the demand treasury notes authorised by act of 17th July, 1861, and provided amount of two kinds of notes together should not exceed $150,000,000; "and such notes herein authorised shall be receiv-" able in payment of all taxes, internal duties . . . due to the " United States, except duties on imports, and of all claims and " demands against the United States of every kind whatsoever, " except for interest upon bonds and notes, which shall be paid in " coin, and shall also be lawful money, and a legal tender in payment

" of all debts, public and private, within the United States, except " duties on imports and interest as aforesaid,"—said notes to be convertible in sums of not less than $50 into 6 per cent. 5-20s; and to be received at par value as coin in payment of any future loans.

The act further enacts that, to enable the secretary of the treasury to fund the treasury notes and floating debt of the United States, he be authorised to issue, on the credit of the United States, 6 per cent. 5-20 bonds, not exceeding $500,000,000 in amount, and not less than $50 each; and the secretary is authorised to dispose of such bonds at their market value, for coin or treasury notes or United States' notes; and it is declared that "all stocks, bonds, and " other securities of the United States, held by individuals, corporations, or associations within the United States, shall be exempt " from taxation by or under State authority."

The act further authorises secretary to receive notes, in sums not less than $100, on deposit for not less than thirty days, and to issue therefor certificates of deposit bearing interest at 5 per cent.; but notes so deposited may be withdrawn at any time after ten days' notice, provided that the interest should cease at the pleasure of the secretary, and that the aggregate should never exceed $25,000,000.

The act further provides that "all duties on imported goods " shall be paid in coin, or in notes payable on demand heretofore " authorised to be issued and by law receivable in payment of " public dues, and the coin so paid shall be set apart as a special fund, " and shall be applied as follows:—

> " First. To the payment in coin of the interest on the bonds " and notes of the United States.
>
> " Second. To the purchase or payment of 1 per cent. of the " entire debt of the United States to be made within each " fiscal year after 1st July, 1862, which is to be set apart " as a sinking fund, and the interest of which shall in like " manner be applied to the purchase or payment of the " public debt as the secretary of the treasury shall from " time to time direct.
>
> " Third. The residue thereof to be paid into the treasury of " the United States."

It will appear subsequently that the provision enacting a sinking fund has never been observed; and the customs' receipts have been included in the general accounts of the treasury, instead of being applied separately as directed. It is proper to add that the power of Congress to issue inconvertible paper, and to enforce its reception in discharge of debts, was much questioned, and indeed formally denied, before the courts of the State of New York. Learned judges decided for and against the validity of the assumed power, but on appeal to the court of appeals of that State the action of Congress was sustained. The defence chiefly rested on the clause of the constitution empowering Congress "to coin money and to "regulate the value thereof," and the other article providing that "no State shall make anything but gold and silver coins a tender "in the payment of debts."

I do not know whether the question was ever raised before the courts of other States,* or before the supreme court of the union. It appears to me to be certain, beyond all doubt, that the court of New York was wrong; but it need scarcely be added that the interpretation put on the powers of the legislature cannot now be practically questioned.

Whether unconstitutional or not, few will now deny that it was the origin of the later disorders of the Federal finances; and it also appears to be highly probable that this enactment more than any other excited the great distrust of American investments which followed in Europe. In the diplomatic correspondence, 1863, Mr. Pike, the United States' Minister at the Hague, writes under date 17th December, 1862:—

"The act making Government paper legal tender raised a "general distrust in commercial and financial circles in Europe, "which a promise to pay the interest on Government bonds in coin "failed to allay. It was argued that the temper which prompted "the greater assault on capital would not stick at the less when "necessity prompted." And in the same month he wrote again:

"It is an often expressed hope in financial circles that our courts "will declare the legal-tender enactment of last year to be unconsti-"tutional. It is thought if this should be done, and Mr. Chase's "recommendation be sustained by Congress, that our financial "situation would soon again command the confidence of capitalists "abroad."

If Mr. Pike's views were correct, and, writing in Holland, he was freed from an atmosphere of prejudice elsewhere prevalent, the result is a remarkable instance of the dangerous consequence of yielding to a tempting error.

The delay in the passage of the Loan Bill (25th February, 1862) had caused an accumulation of unpaid but audited claims, and on the 1st March an act was approved which authorised the secretary of the treasury to issue certificates of indebtedness, in satisfaction of audited and settled demands, in sums not less than $1,000, payable in one year from date, or earlier at option of Government, and bearing interest at rate of 6 per cent. (amount unlimited).

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* It was raised before the district court of Philadelphia, and the constitutionality of the act affirmed by two judges against one; but, in 1865, the court of appeals in Kentucky decided against its constitutionality.

After the passing of the act (25th February, 1862), the holders of the demand-notes issued under previous acts ($50,000,000 17th July, 1801, and $10,000,000 12th February, 1862) pointed out that the notes they held, though declared receivable for all dues payable to the United States, were by the last act excluded from the privilege of being paid in discharge of customs' duties, and were also not legal tenders, as the notes issued under the last act were declared to be.

A supplemental bill was approved on 16th March, 1862, declaring these earlier demand-notes receivable for import duties, and as legal tenders; also empowering secretary to purchase coin with any of the bonds or notes of the United States at such rates and upon such terms as he might deem advantageous; also empowering him to issue certificates of indebtedness in discharge of cheques drawn by disbursing officers upon sums placed to their credit, as well as in discharge of audited and settled accounts; also raising limit of temporary deposits at 5 per cent. from $25,000,000 to $50,000,000.

The financial history of the remainder of the year is uneventful, but during the whole of it Congress was engaged in considering the Inland Revenue Bill.

On the 1st March, 1862, the funded debt was stated to be $352,989,710, and on the 29th May it had grown to be $491,448,984, an increase of $223,908,949 over the statement of the 1st December, accounted for as follows:—

	$
7-30s	20,523,450
Demand notes	121,329,675
Deposits (ten days)	50,778,566
Certificates indebtedness	47,199,000
Oregan debt	570,550
5-20s (funded notes)	2,699,400
	243,100,641
Less notes received	19,191,692

It will be observed that the greater part had been raised by the issue of inconvertible paper, of certificates of indebtedness, and by the receipt of deposits payable at ten days' notice, the amount created in permanent debt ($5,200) being very small.

Congress adjourned on the 17th July, but before doing so several important acts were passed. The Inland Revenue Act was finally approved on the 1st July, although it did not come into operation until the 1st September. Some attempt to exhibit its chief provisions will be found in Appendix B. They included excise duties, licence duties, assessed taxes, an income tax,* legacy duties, and succession duty, applicable, however, only to personalty exceeding $1,000 in value. The income tax was 3 per cent. on excess of incomes over $600 when the total income was less than $10,000, and 5 per cent. when total was not less than $10,000. With respect to the excise duties on manufactures, all manufacturers liable in respect of their manufactures to assessment were required to furnish to an assistant assessor sworn statements of the places, character, and proposed markets of their manufactures, and to make monthly returns of their products, sales, and deliveries. The duties were to be paid monthly on the values estimated by actual sales. All manufacturers not producing more than $600 annually were exempt, but the exemption did not apply to cases where one person furnished materials and employed another to make them up.

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* In substitution for that imposed on 5th August, 1861.

It was thought that this act would produce an annual revenue of $150,000,000.

Another act was approved on 11th July, 1862, increasing the power to issue notes and to receive temporary deposits.

Secretary authorised to issue additional $150,000,000 in United States' notes, none to be less than dollar and not more than $35,000,000; $5 to be legal tender, and receivable in all cases except for import duties, and interest payable by United States on bonds, notes, and certificates of debt and deposit. Any holder may deposit $50 or multiples of $50, and receive in exchange 5-20 bonds bearing interest at 6 per cent., subject to proviso that secretary may pay such deposited notes in coin. Limitation of temporary deposits raised to $100,000,000. Secretary may, under provisions of act of 17th July, 1861, borrow, at any time within twelve months, such part of $250,000,000 authorised thereby as may not be borrowed. Act of 25th February, 1862, incorporated.

Another act was approved on 14th July, 1862, increasing import duties (see Appendix A), but it did not come into operation before the 1st August.

Two more acts remain to be noticed. One, approved on the 16th July, 1862, imposing duty, additional to that enacted 1st July, 1862, of 1 cent per pound on all brown muscavado or sugars manufactured in United States.

Another, approved 17th July, 1862, empowering secretary of treasury to issue postage and other stamps, to be exchanged on demand for United States' notes, and forbidding any bank to put into circulation notes of less than one dollar; immediately after which Congress adjourned.

The amount of receipts and expenditure of the year 1861-62, though not fully known till some time later, may be here stated:—

Income.	$	$
Customs—		
1st quarter	7,198,603	
2nd „	8,309,066	
3rd „	14,618,558	
4th „	18,930,170	
	49,056,397	
Land sales	152,204	
Direct tax	1,795,332	
Miscellaneous	931,788	
		51,935,721
Loans negotiated	113,838,411	
7-30s	166,412,585	
5-20s	13,990,600	
Certificates indebtedness	49,881,980	
Treasury notes demand	60,030,000	
„ legal tender	125,538,884	
		529,692,460
		581,628,181

Expenditure.		$
Civil, foreign, and miscellaneous		21,408,491
Interior		3,102,985
War		394,368,407
Navy		42,674,570
		461,554,454
Interest on debt		13,190,338
Treasury loans refunded	52,928,207	
Treasury notes redeemed	43,168,711	
		96,096,918
		570,841,700

Of the war expenditure, $160,034,000 had been spent in the last quarter. The amount of the debt at the end of the year was $514,211,371, the particulars of which are given in Appendix C.

When Congress assembled in December, 1862, Mr. Secretary Chase presented his report for the year 1861-62. It began by recapitulating the circumstances under which the estimates for the year had been based, and the causes which had compelled an increase of them in December, 1861. The estimated public debt on 30th June, 1862, was then taken at $517,372,802; the debt had proved to be $514,211,372, exclusive of unascertained claims, not supposed, however, to exceed the value in the treasury, or $13,043,546. It was, however, impossible to hope that the debt on 1st July, 1863, would be, as estimated, below $900,000,000; this estimate must be increased to $1,122,297,403, and the estimate of the debt on 1st July, 1864, could not be put below $1,744,685,586.

Estimates.		Revenue. $
Receipts for 1862-63 (realised as to first quarter)		180,495,345
On account of loans negotiated up to 1st December		200,129,717
„ „ authorised but not realised		131,021,197
		511,646,259
Expenditure exclusive of principal of debt	893,346,321	
Debt repayable	95,212,456	
	988,558,777	
Estimated unexpended appropriations	200,000,000	
		788,558,777
To be provided by Congress		276,912,517

The estimated expenditure for 1863-64, supposing the war continued, was taken at—

	$
Civil list	25,081,510
Interior	10,346,577
War	738,829,146
Navy	68,257,255
	842,514,488
Interest on public debt	33,513,890
Principal	19,384,804
	895,413,183
Add undrawn expenditure, 1862-63	200,000,000
	1,095,413,183
Deduct undrawn expenditure, 1863-64	250,000,000
	845,413,183

Estimated receipts:—

Customs	70,000,000	
Internal duties	150,000,000	
Lands	25,000	
Miscellaneous	3,000,000	
		223,025,000
To be provided for		622,388,183
Add deficiency, 1862-63		276,912,517
Aggregate deficiency		899,300,701

The money raised in December, 1861—December, 1862, had been principally obtained as follows:—

	$
Currency notes	200,000,000
Certificates deposit	79,798,650
„ indebtedness	87,363,241
Three years 7-30s	50,000,000
5-20s	22,000,000
„ converted	23,750,000
	462,911,891

The unused borrowing powers of the Government consisted of the following items:—

	$
Balance of 250,000,000 currency notes	27,067,889
" 100,000,000 deposits	20,201,350
" 40,000,000 estimated limit of fractional currency	36,115,200
" 100,000,000 estimated limit of certificates of indebtedness	12,636,758
" 5-20s, but estimated amount of them which could be floated under existing laws	35,000,000
	131,021,197

The secretary then addressed himself to the question, how the current deficiency of $276,000,000 should be raised.

He congratulated the country on the fact that recent loans had been issued at lower rates of interest; but as the paper currency was at that time at a discount of 30 per cent., and the loans were paid in paper, while the interest was payable in gold, the congratulation was fallacious.

He proceeded to argue that the premium did not prove an over-issue of paper money, because the total amount of paper issues was not greater than the total amount of issues and of coin in circulation in previous years, and coin had ceased to circulate as money. Admitting, however, that there was a redundant paper currency, he contended that it was not due to an over-issue of United States' paper, because the contractors for the last loans had found it difficult to procure United States' paper with which to complete their contracts, and he drew the conclusion that the banking corporations of the country had improperly increased the volume of their notes in circulation. The secretary therefore proposed a gradual repression of existing issues, and the organization of banking associations, through which a safe and uniform currency, such as he had previously advocated, might be emitted, while the advantage of floating at least $250,000,000 in 5·20 bonds would be incidentally secured. If, in addition to the adoption of this suggestion, the secretary were empowered to sell bonds *below market value*, so as to give a margin of profit to contractors, he thought he should be able to obtain the necessary means for the year. On 18th December, Mr. Stevens, as chairman of committee of ways and means, proposed a new plan. He urged the propriety of calling in and cancelling the stock issued under obligation making interest payable in gold; and of issuing $500,000,000, legal tender notes, and $1,000,000,000, 6 per cent. bonds, interest payable in paper.

On the 1st January, the balance of the loan of 1842 became due, and was paid in gold, the necessary amount having been borrowed from the banks for the purpose. The debt then became $721,668,727 (Appendix C), besides arrears estimated at $99,117,597; and to meet the arrears and other pressing necessities, Congress passed a joint resolution, approved on the 17th January, authorising the secretary to issue $100,000,000 additional demand notes.

On this 1st January President Lincoln issued his proclamation, the intention to issue which had been notified by him on the 22nd September, or 100 days previous, wherein by "virtue of his power "as commander-in-chief," and "as a fit and necessary war "measure," he proclaimed the freedom of all slaves in the States designated as in rebellion, enjoining "upon the people so declared "to be free to abstain from all violence unless in necessary self-"defence," and recommending them "to labour faithfully for "reasonable wages," adding—

"And upon this act, sincerely believed to be an act of justice, "warranted by the constitution upon military necessity, I invoke the "considerate judgment of mankind, and the gracious favour of "Almighty God."

On the 25th February the Banking Act was approved. It was repealed by an act approved 3rd June, 1864, but as its provisions were by the same act for the most part re-enacted, and the associations under the earlier act were enabled to continue under the second, it is more convenient to give the principal sections of the act of February, 1863, noting the modifications they subsequently received.

Among its provisions are clauses—

Establishing in Treasury Department a bureau of currency and comptroller of the currency, authorising banking associations to be formed by any number of persons not less than five:

Provided capital stock never less than $50,000, and in cities of not less than 10,000 persons [by act 3rd June, 1864, 6,000 persons] never less than $100,000:

30 per cent. of capital [50 per cent., act 1864] to be paid up at commencement of business and remainder in instalments of not less than 10 per cent., at intervals of not more than two months [one month 1864]:

Associations may remain incorporated for any period not exceeding twenty years; each shareholder liable to amount of shares held by him in addition to amount invested in such shares.

Every association, before commencing business, must transfer to treasurer of the United States any United States' interest-bearing bonds not less than one-third of the capital stock paid in [not less than $30,000, act 1864], and shall be entitled to receive thereupon, from comptroller of the currency, circulating notes of different denominations ($5 to $1,000), in blank, registered, and countersigned, equal in amount to 90 per cent. of the current market value of the United States' bonds so transferred, but not exceeding the par value thereof.

Whole amount not to exceed $300,000,000, of which one-half to be apportioned among States, &c., according to representative population, and one-half to be apportioned with regard to existing banking capital resources, and business of States, &c.

Associations to pay treasury 1 per cent. per annum on circulation to provide for expenses, "and in lieu of all taxes upon the "circulation . . . or upon the bonds deposited for the security of the same."

The circulating notes thus issued to be received for all debts to the United States, except import duties, and for all debts from United States, except interest on public debt.

The associations authorised by act not to issue any other notes.

All banks not organised under act, and issuing notes to make semi-annual returns. Upon failure of any association to redeem notes it has issued, the comptroller may declare forfeited and cancel or sell the bonds deposited, and give notice to the holders of notes to present them for payment and the same shall be paid as presented, "and for any deficiency in the proceeds of the bonds pledged . . "to reimburse to the United States the amount so expended in "paying the circulating notes of such association, the United States "shall have a first and paramount lien upon all the assets of such "association." [There is no other indication apparent of any guarantee by the United States of full payment].

Banking association to receive, by power of attorney from comptroller, interest on bonds transferred until failure to redeem notes.

Upon depreciation of market value, comptroller may demand deposit of supplementary bonds, and in case of failure to deposit them may withhold interest and invest in supplementary bonds; but such supplementary bonds may be delivered to association when former market value is regained.

The stockholders collectively must not be liable to association, as debtors or sureties, or both, to an amount greater than three-fifths of the capital stock. [This provision, to the infraction of which no penalty was attached, does not appear in the act of 1864.] Qualification, tenure of office and oath of directors.

Association must keep in hand in lawful money 25 per cent.

of aggregate amount of notes and deposits. Every association to observe the usury laws of the State in which it may be located.

No person or firm to be ever liable to association for more than one-third [one-tenth, act 1864] of its capital. Congress reserves right at any time to alter, amend, or repeal act.

A loan bill, approved on the 3rd March, 1863, embodied the recommendations of Mr. Chase, with such additions as had been proved to be necessary by intermediate events. The secretary of treasury was empowered to borrow sum not exceeding $300,000,000 for current year and $600,000,000 for the next fiscal year, in exchange for coupon-bonds payable not less than ten and not more than forty years from date at pleasure of Government, bearing interest at rate not exceeding 6 per cent. in coin.

Secretary to dispose of said bonds on such terms as he may deem advisable, and all such bonds to be exempt from taxation by or under State or municipal authority. Secretary also authorised to issue $400,000,000 in treasury notes, payable at pleasure of United States, at terms not exceeding three years, bearing interest at rate not exceeding 6 per cent., such interest and interest on certificates of indebtedness and deposit thereafter issued to be payable in lawful money.

Said treasury notes may be exchanged for United States' notes equal in amount to treasury notes, and interest accrued at time of payment of interest next preceding exchange; and the secretary is authorised to issue United States' notes to extent of $150,000,000 for special purpose of such exchanges.

Secretary further authorised, if required for payment of army and navy and other creditors, to issue United States' notes to extent of $150,000,000, which shall be lawful money and legal tender, except for import duties and interest on debt; and so much of acts 25th February, 1862, and 11th July, 1862, as restricts the negotiation of bonds to market value, is repealed; and holders of notes issued under these acts must present them for exchange for bonds on or before 1st July, 1863.

Secretary also empowered to issue fractional currency in lieu of postage currency to extent not exceeding $50,000,000.

Secretary may receive gold on deposit, and issue certificates therefor.

In the same act were provisions that—

Banks issuing notes as currency should pay, from and after 1st April, 1863, *half-yearly* duty at rate of 1 per cent. on excess of circulation over following limits:—

					$
90 per cent.	of capital	when capital	does not exceed		100,000
80	„	„	exceeds $100,000	and not exceed	200,000
70	„	„	200,000	„	300,000
60	„	„	300,000	„	500,000
50	„	„	500,000	„	1,000,000
40	„	„	1,000,000	„	1,500,000
30	„	„	1,500,000	„	2,000,000
25	„	„	2,000,000		

N.B.—Separate branches to be treated as separate banks.

And, in addition, a *half-yearly* duty of one-half per cent. upon the circulation not otherwise taxed. Banks organised under act 25th February, 1863, chapter 58, to pay same duties.

Further, all banks issuing notes for fractional parts of a dollar to pay *half-yearly* duty of 5 per cent. on such issue.

Further, all banks (except savings banks) receiving deposits on demand to pay *half-yearly* duty of one-eighth per cent. on average excess of deposits over issue.

On the same day an Act was approved amending the Inland Revenue Act of 1st July, 1862. (See Appendix B.)

The premium on gold having rapidly risen from 33 on the 1st January, to 57 on the 1st February, and 71 on the 1st March, Congress included in the act last referred to clauses restricting the sale of gold. They provided that all contracts for the sale of gold should be in writing, and be stamped with adhesive stamps at the rate of one-half per cent.; declared all contracts not in accordance with the act utterly void, and entitled any party to such contract to recover back for his own use any money paid on account of it.

On the 14th March Congress adjourned.

By the 8th May the demand-notes issued had reached the limit of $400,000,000, and the total debt had grown to $992,381,886, exclusive of arrears.

The freedom of negotiation conceded to the secretary had by this time enabled him to dispose of Government bonds in large amounts, the daily subscription through Mr. Jay Cooke and his sub-agents ranging from $1,500,000 to $2,500,000.

On the 26th May the first formal declaration was made by the secretary of the treasury, in a letter written by his orders to the President of the Revere Bank, Boston, that the five-twenties would be redeemed in gold.

On 1st July debt amounted to $1,098,793,000 (see Appendix B), and the annual charge for interest in gold was $30,141,080, and in paper $11,786,900.

The receipts and expenditure for the year 1862-63 were as follows:—

Income, Year ending 30*th June*, 1863.	$	$
Customs	69,059,642	
Land sales	167,617	
Direct tax	1,485,104	
Internal revenue	37,640,788	
Miscellaneous	3,046,615	
		111,399,766
Loans—		
7-30s	17,263,450	
5-20s	175,037,259	
United States' notes	291,260,000	
Certificates indebtedness	157,479,261	
Fractional currency	20,192,456	
Temporary loan 25th February, 1862	115,226,762	
Miscellaneous	223,174	
		776,682,362
		888,082,128

Expenditure 30*th June*, 1863.		$	$
Legislative, executive, &c.		6,350,618	
Foreign intercourse		1,231,418	
Miscellaneous, including—			
Postal deficiency	249,314		
Californian route	500,000		
Building post offices	83,740		
Compensation, release of slaves, (D.C.)	993,406		
Loan expenses	1,782,456		
Drawbacks internal duties	632,507		
Drawbacks customs	3,312,474		
Customs expenses of collection	3,238,936		
Lighthouses, &c.	873,085		
Land sales expenses	111,254		
Land sales savings	74,346		
Other expenses	—		
		15,671,890	
Interior (Indian)		4,216,520	
War Department		599,298,600	
Navy		63,211,105	
			689,980,148
Interest on debt		24,729,847	
Payment loans and temporary debts		181,086,635	
			205,816,482
			895,796,630

The direct tax had been estimated by Mr. Chase in December previous at more than $11,000,000, but the deficiency was accounted for by reimbursements to the States for military supplies and services. The internal revenue had been estimated at $85,000,000, but the estimate had proved wholly fallacious, and it was mainly owing to this error that the estimated resources of $180,495,000 (including a balance in hand of $13,000,000), had fallen to $124,443,000 (including same balance).

In July Vicksburg and Port Hudson fell.

On the 31st August, the pay of the army becoming due, Mr. Secretary Chase borrowed $50,000,000 from the banks, at 6 per cent., until November, when the debt was to be redeemed by delivery to them of 5 per cent. interest bearing and legal tender notes redeemable in two years. In his letter to the associated bankers, Mr. Chase remarked that "being legal tender for their face, excluding interest, "the notes cannot fall below legal tender par. Bearing interest "they cannot materially affect the circulation with reference to "gold." As a matter of fact, however, the premium on gold ran from 26 in August to 33 in September and 47 in October.

Congress met early in December, and the report of the secretary of the treasury was duly presented to it. Mr. Chase stated the transactions of the previous year (given *ante*) and proceeded to submit his estimates of the current year. The latter were as follows:—

Receipts.	$	*Expenditure.*	$
Customs	72,562,018	Civil Service	34,267,811
Internal revenue	77,599,713	Interior	7,840,313
Lands	436,182	War	885,479,511
Miscellaneous	5,641,542	Navy	112,979,186
			1,040,566,824
	156,239,456	Interest on debt	59,165,136
			1,099,731,960
Loans	594,000,000	Deduct unexpended appropriations	350,000,000
	750,239,456		749,731,960

It would follow that the debt on the 1st July, 1864, might be taken at $1,692,793,181, or, allowing for certain hypothetical deductions, at $1,684,150,042.

Mr. Chase also submitted his estimates for 1864-65.

Receipts.	$	*Expenditure.*	$
Customs	70,000,000	Balance former appropriations	350,000,000
		Civil service	27,973,194
		Interior	9,631,304
Internal revenue	125,000,000	War	536,204,127
		Navy	142,618,785
Lands	1,000,000		1,066,427,411
		Interest on debt	85,387,677
Miscellaneous	5,000,000		1,151,815,088
		Deduct unexpended appropriations	400,000,000
	201,000,000		751,815,088

Allowing again for certain small balances, the debt on the 30th June, 1865, might be taken as increased to $2,231,935,190.

But while submitting estimates showing large loans, the secretary urged upon Congress the necessity of increasing the revenue.

He recommended an increase in the internal duties, especially on bank notes, spirits, and tobacco, and the imposition of a cotton duty.

He again took credit for a reduction in the rate of interest on loans negotiated. He suggested the expediency of removing the limit on the amount of temporary deposits, and the propriety of an authority to borrow in some form $300,000,000 for the current, and $600,000,000 for the ensuing fiscal year.

The comptroller of the currency (Mr. McCulloch), made his first annual report on the national banks, suggesting many amendments in the act, most of which were adopted in the subsequent act already mentioned.

On the 22nd December Mr. Jay Cooke, as subscription agent, advertised that he was prepared to exchange interest-bearing legal-tender notes for non-interest-bearing legal-tender notes to extent of $35,000,000. The interest payable on notes so issued was 5 per cent., and notes under $100 were payable in one year from 1st January, 1864, with interest at maturity; notes of $100 and upwards had coupons attached representing half-yearly interest, and were redeemable two years from 1st January, 1864.

It appears to have been thought that this exchange would result in the withdrawal of part of the notes in circulation, and that this would produce a decline in the premium of gold.

It was soon seen that if the coupons were torn off those notes bearing coupons, the notes themselves were as well adapted for circulation as any other, and, though the secretary issued a notice (under what sanction does not appear) that he would pay no coupons unless the notes to which they appertained were simultaneously produced, the notes still continued in circulation. The immediate object of the secretary was thus frustrated; but this was comparatively unimportant, if, as would seem, his theory was fundamentally incorrect.

At this time certificates of indebtedness issued in payment of supplies sold at 2 to 6 discount.

In the course of the month of March certain important acts were adopted.

An act was approved on 3rd March, 1864, in lieu of so much of act of 3rd March, 1863 (chapter 73)—

Secretary authorised to borrow during current fiscal year to extent not exceeding $200,000,000, on coupon-bonds redeemable at pleasure of the Government after any period not less than five years, and payable at any period not more than forty years in coin, bearing interest not exceeding 6 per cent. in coin, such bonds exempt from taxation by or under State or municipal authority.

Also secretary authorised to issue 5-20 bonds to subscribers who had subscribed before 21st January, 1864, to extent of $11,000,000, notwithstanding such subscriptions were in excess of $500,000,000.

Act of 7th March, 1864 (Appendices A and B)—

Duty on spirits, on basis of first proof, distilled before 1st July next, to be 60 cents per gallon; duty on cotton to be 2 cents per lb.; additional duty on spirits imported previous to 1st July, of 40 cents per gallon.

A resolution, approved 17th March, authorising secretary to dispose of gold in treasury not necessary for payment of interest, provided that obligation to create sinking fund according to act 25th February, 1862, shall not be impaired.

At the end of March the treasury department gave instructions to the sub-treasurer at New York to issue certificates for gold, receivable for duties, at ¼ per cent. below the market price. Such was the demand for these certificates, which gave at times a margin of 5 to 15 per cent., that applicants waited near the sub-treasury from 4 P.M. till 10 the next morning. These sales continued from 29th March to 16th April, and the certificates sold in a day rose from $99,186 to $1,076,698; but so much dissatisfaction arising, *especially as the issue was confined to New York*, it was suspended.

On 12th April Mr. Secretary Chase addressed a letter to Mr. Fessenden, which was read in the Senate, remarking that—

"Notwithstanding the diminished amount of United States' "notes in circulation and the gradual withdrawal from use as cur-"rency of interest-bearing United States' notes . . . the price "of gold continues to advance. This effect can only be attributed "to one or two causes, and is probably due in part to each. First, "the increase of the notes of local banks; and secondly the effects of "speculators;" and the secretary commended to the consideration of the Senate two bills for preventing these operations.

In April, 1864, the legislature of the State of New York resolved that the interest and principal of all its debts should be paid as accruing in paper, reversing so far their resolution of April, 1863, which declared that the interest payable to foreign holders should be paid in gold. Governor Seymour, by message, remonstrated against the resolution, and addressed a circular to the merchants of the State against it; but although the Chamber of Commerce of New York city unanimously supported him, and voted subscriptions in aid of the deficiency, relying upon the hope "that better counsels will "prevail among our legislators and the State repay what is now "advanced;" the legislature declined to accept the proferred aid.

It is believed that New York was not the first State which thus evaded its obligations, and ultimately all indebted States, with the exception of Massachusetts and perhaps Rhode Island, followed the same dishonest course.

At this time the expenditure of the Government averaged $2,500,000 a-day, the actual increase of the debt between the 2nd February and the 14th May (102 days) having been from $1,473,225,000 to $1,730,870,000 or $257,645,000, and more than two-thirds of this increase had been occasioned by an issue of the interest-bearing legal-tender notes.

An act approved on the 3rd June repealed the national currency act of 25th February, 1863, but in effect re-enacted it with such minor variations as have been noted in the abstract of the first act and the following variations.

The provision requiring every association to keep in hand, in lawful money, 25 per cent. of aggregate circulation and deposits was restricted to associations in seventeen of the principal cities of the union, and other associations were required to keep no more than 15 per cent., and of this three-fifths might consist of balances due from associations in the said principal cities. The associations in the said cities again were to make their notes redeemable in New York, and to keep one-half of their reserve there.

In lieu of the tax of 1 per cent. per annum on circulation it was provided that each association should pay—

½ per cent. each half-year on circulation
¼ „ „ deposits
¼ „ „ its stock over and above such part as might be invested in United States' bonds.

An act, 17th June, 1864, made time-bargains in gold unlawful, but it was repealed on the 2nd July following.

An act, 30th June, 1864, imposing a new tariff to come into operation on 1st July (see Appendix A).

An act approved 30th June, 1864, secretary authorised to issue coupon bonds to extent of $400,000,000, redeemable at pleasure of Government at any period not less than five nor more than thirty years, or if deemed expedient payable at any period not more than forty years from date. Not less than $50 each, and interest payable at 6 per cent. half-yearly in coin. Secretary to dispose of bonds at his discretion. Usual exemption from State or municipal taxation.

Secretary authorised to issue, as part of said loan, treasury notes to extent of $200,000,000, payable at any time not exceeding three years after date, or redeemable at any time after three years from date, with interest not exceeding $7\frac{3}{10}$ths per cent. in lawful money.

So much of the law approved 3rd March, 1864, has limited the loan authorised thereby to the current fiscal year repealed, and borrowing powers given by act 3rd March, 1863, cancelled, except as regarded $75,000,000 in bonds already advertised.

Treasury authorised to receive United States' notes and national bank notes on deposit-certificates payable at ten days' notice, with interest not exceeding 6 per cent., to extent of $150,000,000; and secretary to issue and hold in reserve for payment thereof United States' notes, not exceeding $50,000,000, including amount already applied in such payment.

Secretary authorised to issue fractional currency, provided that whole amount of all descriptions of notes or stamps less than $1 issued as currency shall not exceed $50,000,000.

A third act, 30th June, 1864, remodelling internal revenue (Appendix B).

On the same day Mr. Chase resigned, and after an abortive nomination of Governor Tod, of Ohio, Mr. Fessenden of Maine was nominated, and approved as his successor.

The receipts and expenditures for the year ending 30th June, 1864, were as follows:—

Receipts.			*Expenditure.*		
	Estimated.	Actual.		Estimated.	Actual.
	$	$		$	$
Customs	72,562,018	102,316,152	Civil list	34,267,811	27,505,599
			Interior	7,840,314	7,517,930
Lands	436,182	588,333	War	885,479,511	690,791,842
			Navy	112,979,186	85,733,292
Miscellaneous	5,641,542	47,511,448			
				1,040,566,824	811,548,666
Direct tax (arrears)	—	475,648	Deduct unexpended appropriations	350,000,000	
Internal revenue	77,599,713	109,741,134			
				690,566,824	
			Interest on debt	59,165,136	53,685,421
	156,239,456	260,632,717			
				749,731,960	865,234,087
Loans	—	730,642,410	Redemption of debt	—	112,527,526
		991,275,128			977,761,613

The excess in miscellaneous receipts was due to the premium on gold sold, and to commutation money.

The internal revenue being dependent in a great measure on the range of prices, had increased in nominal amount with the rise in the premium on gold.

The loans raised during the year were—

	$
Fractional currency	2,702,421
5-20s (25th February, 1862)	321,557,283
„ (17th July, 1861)	30,565,875
10-40s (3rd March, 1864)	73,337,600
20s („ '63)	42,141,771
United States' notes	43,859,821
1-year notes (3rd March, 1863)	44,520,000
2-year „ „	152,864,800
3-year notes	15,000,000
Certificates indebtedness (balance over amount redeemed)	4,098,758
	730,642,410

The amount of debt became $1,733,810,119.

A joint resolution, approved 4th July, 1864, providing that in addition to the income duty already imposed, there should be levied on 1st October, 1864, a special income duty at rate of 5 per cent. on all sums exceeding $600.

On assuming office on the 5th, Mr. Fessenden found himself, as he afterwards acknowledged, in a very embarrassing position. The balance in the treasury was less than $19,000,000, the unpaid requisitions were nearly $72,000,000, and the amount of certificates of indebtedness outstanding $161,796,000. The prospect of negotiating a loan was not flattering, as an advertisement for a loan of $33,000,000, advertised on the 25th June, had been withdrawn, because the tenders for it were not such as could be accepted. The necessity of obtaining was however pressing, and Mr. Fessenden visited New York, in hopes that at a personal interview he might negotiate a loan of $50,000,000 with the banks, but his efforts were unsuccessful.

At that time the borrowing powers of the secretary consisted of—

33,000,000 balance of the 5-20s of 1861.
127,000,000 „ 10-40s „ '63.
400,000,000 in bonds or treasury notes, under act 30th June, 1864.
Unlimited certificates of indebtedness.
78,000,000 balance of limit of temporary deposits.
50,000,000 act 30th June, 1864, currency in payment of deposits.

In this emergency the secretary followed, possibly unconsciously, the course pursued by Mr. Pitt under similar circumstances.

On 25th July, 1864, he issued an address to the people of the United States, exhorting them to subscribe to the loans authorised by the act approved on 30th June. He reminded the nation that the war had been proclaimed and carried on by themselves, and apologised for what had been condemned as "undue timidity and "tardiness of action on the part of Congress" in imposing more extensive and vigorous taxation. "Legislators, like all others," he said, "have much to learn in a new condition of affairs. An "entirely new system was to be devised, and that system must "necessarily be the growth of time and experience. It is not "strange that first efforts should have proved imperfect and inade"quate. To lay heavy burdens on a great and patriotic people in "such a manner as to be equal, and as to occasion the least amount "of suffering or annoyance, requires time and caution and vast "labour; and, with all these, experience is needful to test the "value of the system and to correct its errors." He proceeded to declare that the Internal Revenue Act had at least exceeded in efficiency the most sanguine expectations, not unfrequently bringing in a million in a day; and concluded: "The denomination of the "notes proposed to be issued . . . place these securities within the "reach of all who are disposed to aid their country. For their "redemption the faith, honour, and prosperity of that country are "solemnly pledged. A successful issue to this contest, now believed "to be near at hand, will largely enhance their value to the holders, "and, peace once restored, all burdens can be lightly borne. . . . . "I appeal with confidence to a loyal and patriotic people, and "invoke the efforts of all who love their country and desire for it a "glorious future to aid this Government in sustaining its credit, "and placing that credit upon a stable foundation."

The success of this appeal was not what he had hoped, and Mr. Fessenden was compelled to satisfy the arrears of pay of the army by offering them 5 per cent. and 7-30 notes of small denominations. "He was gratified to find that the latter was readily "taken, to an extent exceeding $20,000,000, our gallant soldiers in "many instances not only receiving them with alacrity, but "expressing their satisfaction at being able to aid their country by "loaning money to the Government."

Subsequently, on the 9th September, Mr. Fessenden was able to negotiate the unissued balance of the 5-20s of 1861 ($31,000,000) at a small premium, and on the 14th October he negotiated a loan of $40,000,000 in 5-20s of 1864 at about par, receiving, however, one-fourth of the subscription in certificates of indebtedness.

In November Mr. Lincoln was re-elected president, every State sharing in the election concurring in the renewal of trust, except Delaware, Kentucky, and New Jersey.

Congress met on the 6th December. In presenting his first (and, as it proved, his last) report, Mr. Fessenden reviewed the financial measures of Congress and the Government from the beginning of the war. He proceeded to prove the impossibility of precision in framing estimates, and of fixing upon any policy not subject to the contingencies of the hour. The resort to an inconvertible currency had been unavoidable, but "the idea of a specie "basis was not lost sight of, as the payment of interest on long "loans in coin was amply secured. And though in several of the "acts authorising the issue of bonds at long periods, payment "of the principal at maturity in coin is not specifically provided, "the omission, it is believed, was accidental. . . . It is respectfully "recommended to remove all doubt upon this point by proper "legislation."

After stating the receipts and expenditure of the past year (see *ante*), Mr. Fessenden proceeded to submit his estimates for the current year (realised as to the first quarter):—

Receipts.	$	*Expenditure.*	$
Customs	70,271,091	Civil service	35,564,911
Lands	642,185	Interior	11,551,774
		War	963,679,672
Internal revenue	249,562,859	Navy	143,222,560
Miscellaneous	24,020,171		1,153,918,920
Direct tax	16,079	Interest on debt	91,810,214
			1,245,729,135
	344,512,389	Deduct unexpended appropriations	350,000,000
Increase on internal revenue if proposals adopted	50,000,000		
			895,729,135
Certificates of indebtedness newly issued	75,000,000	Add debt maturing, certificates indebtedness, &c.	163,353,320
	469,512,389		1,059,082,455

The increase of debt on the transactions of the year would be a little in excess of $500,000,000; and this, added to the amount on the 1st July, 1864, raised the estimate of the public debt, on the 1st July, 1865, to $2,223,064,677.

The estimates for the year 1865-66 were—

Receipts.	$	*Expenditure.*	$
Customs	70,000,000	Balance unexpended appropriations	350,000,000
		Civil service	33,082,097
		Interior	14,196,050
Internal Duties	300,000,000	War	531·758,191
		Navy	112,219,666
Lands	1,000,000		1,041,256,005
		Deduct unexpended	350,000,000
Miscellaneous	25,000,000		691,256,005
		Interest on debt	127,000,000
		Debt maturing (balance)	47,365,000
	396,000,000		865,621,005

Shewing a value of $469,621,005; and the estimate of debt on 1st July, 1866, would be $2,645,320,682.

The secretary recommended the appointment of a commission to inquire as to profitable sources of revenue, and devise improvements in the mode of collection. He suggested a tax on unmanufactured tobacco, the abolition of any exemption on the imposition of the income tax and the adoption of a scale, and called the attention of Congress to the possibility of making the public domain (especially the mineral lands) a basis for the redemption, hinting at the same time doubts of the wisdom of the Homestead Law. Referring to the clause in the act of 25th February, 1862, creating a sinking fund, Mr. Fessenden said that the action of a sinking fund in time of war was nugatory, and "for this reason no attempt "to carry out this provision has yet been made." It would seem that the words "as the secretary of the treasury shall from time to "time direct" (see *ante*) had been construed to give the secretary power to suspend the action of the provision altogether, their simple meaning being that the secretary might, at his discretion, buy up or redeem the debt with the funds accumulating. Mr. Fessenden, however, recommended the creation of a sinking fund commission in whom the proceeds of the sales of the public domain might be vested.

In conclusion, after reviewing the incidents of his short experience, Mr. Fessenden suggested that the secretary should be released from the restrictive provisions hampering the negotiations of loans, and recommended a law for the exemplary punishment of combinations of unpatriotic speculators, and probably secret enemies, to raise the price of coin. In view, however, of the increase of the interest payable in coin, and the embarrassment which might be occasioned thereby, Mr. Fessenden said he had been forced to the conclusion that Congress would be forced to rely upon loans bearing interest in paper, and he submitted that securities of this kind redeemable in three or five years, and convertible at maturity into 5-20s, would be preferable to any other form of loan.

The report of Mr. McCulloch, as comptroller of the currency, on the progress of the national banks accompanied Mr. Fessenden's statement. Up to the 1st July the notes put into circulation through these organisations amounted to $25,800,000; on the 1st October their sum had increased to $45,260,000; and during October and November had grown by more than $2,000,000 a-week. Some of these issues were in exchange for State issues withdrawn, but the amount emitted was greatly in excess of the amount retired.

On 6th December Mr. Thaddeus Stevens obtained leave to introduce a bill, which was read and referred to committee, declaring the equality of value of the gold dollar and the paper dollar, making all contracts payable in coin payable in paper, and declaring all attempts to evade the proposed act a misdemeanour punishable by six months' imprisonment.

The legislation of the session consisted of—

Act 28th January, 1865, authorising the secretary to issue treasury notes in lieu of unissued balance of coupon bonds authorised by act 30th June, 1864.

Act 3rd March, 1865, authorising the secretary to borrow to extent of $600,000,000, in addition to amount formerly authorised, upon bonds or treasury notes; proviso, that if interest be payable in coin it must not exceed 6 per cent., and if not payable in coin must not exceed $7\frac{3}{10}$ths per cent.; but these obligations might be disposed of at any rates the secretary of the treasury might think advisable.

Another act approved on the same day enacting a revised tariff, to come into operation on the 1st April (Appendix A); and a third act amending the Internal Revenue Act (Appendix B), providing among other things for the extinction of States' issues after the 1st July, 1866, by taxing them 10 per cent., and for the appointment by the secretary of the treasury of a commission to inquire and report upon the subject of taxation, and the best mode of attaining revenue.

Early in March Mr. McCulloch was nominated and approved secretary of the treasury.

Soon after he arranged with Mr. Jay Cooke for the issue of the $600,000,000 loan; the first issue to be made on the 15th of June, and to consist of $300,000,000 in 7-30s.

The victories of Sherman and the apparent approach of the end of the war brought down the prices of gold during the month of March from 201 to 151.

On 15th April President Lincoln died of the effects of the wounds inflicted by the assassin Booth.

The death of Mr. Lincoln may be taken as marking the end of the war, which began almost simultaneously with his accession and the close of the war, was necessarily a turning point in the financial history of the Federation.

On the 6th May the circulation of the national banks had increased to $126,360,000.

Early in June Mr. McCulloch appointed Mr. Wells, New York, Mr. Colwell, Pennsylvania, and Mr. Hayes, Illinois, the members of the revenue commission authorised by the act of March, and they at once entered upon their labours.

The following is an abstract of the income and expenditure of the year ending 30th June, 1865:—

Income.	$	$	*Expenditure.*	$	$
Customs	84,928,260		Civil service	44,765,558	
Lands	996,553		Interior	14,258,575	
Direct tax	1,200,573		War	1,031,323,360	
Internal revenue	209,464,215		Navy	122,567,776	
Miscellaneous	32,978,284				1,212,915,270
			Interest on public debt		77,397,712
		329,567,886			1,290,312,982
Loans and treasury notes........		1,472,224,741	Redemption of debt and notes		607,361,241
		1,801,792,627			1,897,674,224

The amount of debt on the 30th June was $2,682,593,026 (Appendix C.)

The remaining incidents of the year are few. Mr. McCulloch issued the balance of the $830,000,000 authorised to be issued in 7-30 bonds, and he increased the amount of 5-20s; but, on the other hand, he withdrew the interest-bearing notes authorised by the act of 3rd March, 1863, and greatly reduced the volume of certificates of indebtedness afloat. (See Appendix C.) When Congress met on the 4th December the secretary made his (first) annual report.

Mr. McCulloch began by referring to the currency, and admitted, with respect to the legal-tender notes, that "the authority to issue "them as money is neither expressly given to Congress by the "constitution nor fairly to be inferred, except as a measure of "necessity in a great national exigency." He estimated the active circulation of the United States on the 31st October—

	$
United States' notes and fractional currency	454,218,038
National bank notes ($205,000,000 issued)	185,000,000
State bank issues outstanding..	65,000,000
Treasury and compound interest notes ($205,550,000 issued)	30,000,000
	734,218,038

and, after an elaborate argument to prove the mischief arising from such an inflation, asked for authority to issue 6 per cent. bonds for the purpose of retiring the United States' and compound interest notes.

Proceeding to discuss the debt of the Union, Mr. McCulloch submitted his estimates for the current year (realised as to the first quarter):—

Receipts.			*Expenditure.*		
	$	$		$	$
Customs	147,009,583		Civil service	43,565,513	
Lands	632,890		Interior	18,281,032	
Direct tax	31,111		War	473,157,987	
Internal revenue	271,618,885		Navy	51,520,669	
Miscellaneous	48,393,729				586,525,201
			Interest on public debt		132,987,350
		467,686,200			719,512,551

And also his estimates for the year 1866-67:—

Receipts.			*Expenditure.*		
	$	$		$	$
Customs	100,000,000		Civil service	42,165,599	
Internal revenue	275,000,000		Interior	17,609,640	
Lands	1,000,000		War	39,017,416	
Miscellaneous	20,000,000		Navy	43,982,457	
					142,775,112
			Interest on public debt		141,542,068
		396,000,000			284,317,180

But these estimates were exclusive of debt to the extent of $187,549,000 falling due in 1865 and 1866, and to the extent of $848,323,000 due in 1867 and 1868 (the latter consisting chiefly of the 7-30 three year bonds).

In view of these liabilities Mr. McCulloch asked for authority to sell bonds bearing interest not greater than 6 per cent. for the purpose of meeting the prospective deficiency in the current year, reducing the temporary debt, and entering upon such further negotiations with the holders of the 7-30 bonds as he might deem desirable. He held it prudent to assume that the whole debt of the Union on the 1st July, 1866, would be $3,000,000,000 and he thought that this might be funded at 5 or 5½ per cent., so that, setting apart $200,000,000 annually for the payment of interest and the redemption of capital, the debt might be liquidated in a period varying from twenty-eight to thirty-two years.

Before passing from the subject of the debt, Mr. McCulloch suggested the propriety of improving the foreign credit of the 5-20 bonds by a Congressional declaration that the principal as well as the interest of them would be paid in coin; and, with reference to the exemption of Government securities from State taxation, strongly deprecated any interference with that exemption, as far as regarded bonds already issued, as a breach of public faith; and also argued against permitting States to impose local taxes on bonds thereafter issued, as that would render it impossible to fund the debt at home at a low rate of interest.

Mr. McCulloch referred to the labours of the revenue commission, and coincided in the opinion he understood they had formed, that the system of national taxation might be much simplified without lessening the total produce; but he deferred a fuller statement of his views until the commission presented their report.

Among other subjects touched upon were the approaching termination of the Reciprocity Treaty, which Mr. McCulloch held to have operated unilaterally; the rapid extension of the national banks, "one of the great compensations of the war;" and the clauses of the act 25th February, 1862, providing for the creation of a sinking fund. The necessities of the treasury had made compliance with these provisions impracticable, and acting upon them would in any case have hardly been judicious. After the expiration of the current year it would be practicable to carry them into effect, but "the secretary is of the opinion that the safe and "simple way of sinking the national debt is to apply directly to its "payment the excess of receipts over expenditure." He, therefore, recommended the repeal of the provisions in question.

On the 6th January the authorised issues of the national banks amounted to $240,000,000.

Before Congress began to legislate, Mr. McCulloch transmitted to them the report of the revenue commission. It began by complaining of and exemplifying the difficulty of obtaining exact information, asserting, as the result of the experience of the commission, "that no full and reliable statistics concerning any branch "of trade or industry in the United States, with possibly a few "exceptions, are now or have ever been available." After examining the systems of other countries, the report showed the mischievous effects of the duplication and confusion of the national system, declaring that "it violated all the fundamental principles of "taxation, inasmuch as the taxes [collected] are neither definite in "amount, equal in application, nor convenient of collection." The commission went on to propose the adoption of what they termed a "concrete" rather than a "diffused" system of taxation, and made the following special recommendations:—

A reduced tax of $1 per gallon on distilled spirits (not adopted).

An increase of the excise tax on cotton to 5 cents per lb. (raised to 3 cents only and since reduced, and now abolished).

An abolition of the discrimination in the income tax (adopted in the year 1867).

Repeal of assessed taxes except on billiard tables (not adopted, but modification introduced in tax on carriages).

Repeal of excise on clothing (partially adopted).

Repeal of excise on pig iron, coal, and books (adopted).

They demurred to the propriety of an immediate attempt to reduce the debt, and urged the re-organisation of the revenue service, including therein the alteration of the system which made the appointment, retention, and promotion of officers dependent upon other circumstances than qualifications of good behaviour.

Accompanying the report of the commission was a separate report of Mr. Hayes (not approved by his colleagues), recommending that a tax of 1 per cent. should be annually levied on the capital of the Federal securities owned by residents in the States or citizens of the Union resident abroad, and that such tax should be vested in trustees, as a sinking fund for the redemption of the debt. Mr. Hayes defended his proposal on the ground that the tax he suggested would be about equal to the State and Municipal taxes from which the Federal securities had been exempted.

The financial legislation of Congress during this session consisted of—

An act, approved on 10th March, 1866, declaring non-residents, whether citizens or aliens, liable to payment of income tax on dividends payable on the public debt.

An act, approved 12th April, 1866, giving the secretary greater powers in converting outstanding notes and securities, provided that not more than $10,000,000 of United States' notes be withdrawn within six months after the passing of the act, and not more than $4,000,000 in any one month afterwards.

An act, approved 16th May, imposing import duty of 20 per cent. *ad valorem* on live animals.

An act, approved 13th July, 1866, reducing internal taxation after 1st August (see Appendix B), and enacting new taxes on banks other than national banks. It was estimated that the reduction of taxation consequent on the act would be $65,000,000. By this act the secretary was empowered to appoint a special commissioner of the revenue, to hold office for four years, and on the 16th July Mr. Wells was selected as the commissioner, and proceeded at once to enter upon the duties of inquiry.

An act, approved 28th July, imposing, from and after 10th August, duty of $3 per pound and 50 per cent. *ad valorem* on cigars, and containing other provisions for the protection of the revenue.

A joint resolution was approved on the same day, exempting returned soldiers from claims for arrears of the special income tax imposed by resolution of 4th July, 1864.

The income and expenditure for the year ending the 30th June, 1866, proved to be:—

Receipts.	$	*Expenditure.*	$
Customs	179,046,651	Civil, &c.	41,056,961
		Interior	18,852,417
Lands	665,031	War................................	284,449,701
Direct tax	1,974,754	Navy	43,324,118
Internal revenue	309,226,813		
			387,683,198
Miscellaneous................	67,119,369	Interest on debt...........	133,067,742
Total revenue....	558,032,620		520,750,940
Loans	712,851,553	Debt redeemed	620,321,726
	1,270,884,173		1,141,072,666

The amount of the debt was $2,783,425,879 (Appendix C).

When Congress met in December, Mr. McCulloch had the satisfaction of announcing that the net decrease of the debt on the 31st October, 1866, compared with its maximum on 31st August, 1865, was more than $200,000,000. He did not expect, nor think it desirable, that this rate of decrease should continue; taxation had been reduced in the last session, and a further reduction ought to follow; but with due economy, "no additional donations to rail-" roads, no payments but in the fulfilment of contracts, and no " unnecessary expenditure for any purpose whatever, and with wise " and equal revenue laws, the debt could be paid by the generation " that created it."

The secretary expressed his regret that his recommendations on the subject of the currency had not been adequately embodied in legislative enactments, and pressed them again with great earnestness on the attention of Congress.

With respect to taxation generally, Mr. McCulloch desired to await the report of Mr. Wells, but he recommended to the consideration of Congress the fact that "a redundant currency and " high taxes" prevented shipbuilding, and had arrested the progress of all manufactures.

He suggested the following axioms as the basis of legislation:—

1. Internal duties should be levied on the fewest possible number of articles.

2. Import duties should correspond and harmonise with internal duties.

3. Raw materials should be as far as possible exempt from taxation.

4. " Taxation should fall chiefly on those whose interests are " protected by it, and upon those to whom the public debt is a " source of wealth and profit, and lightly upon the labouring

"classes, to whom taxation and the debt are without so many compensatory advantages."

And, with a view to the reduction of the burden of the debt, suggested the issue of bonds bearing interest at 5 per cent. payable in Europe (London or Frankfort), to absorb the 6 per cents. held in Europe and supply the demand for investment.

Mr. McCulloch added, that specie payments might be resumed, and ought to be resumed by the 1st July, 1868, and he hoped the character of future legislation would bring it about even earlier.

His estimates of the year 1866-67 (realised as to first quarter), were:—

Receipts.	$	*Expenditure.*	$
Customs	160,843,774	Civil service	49,299,684
Lands	728,399	Pensions and Indians	24,050,193
Direct tax	340,454	War (including bounties $15,000,000)	72,637,871
Internal revenue	285,166,994	Navy	31,023,419
Miscellaneous	27,981,764		177,011,167
		Interest on debt	139,416,912
	475,061,386		316,428,079

And for the year 1867-68:—

Receipts.	$	*Expenditure.*	$
Customs	145,000,000	Civil service	50,067,342
		Pensions and Indians	25,388,489
Internal revenue	265,000,000	War (64,000,000 bounties)	110,561,962
Lands	1,000,000	Navy	30,251,605
Miscellaneous	25,000,000		216,569,398
		Interest on debt	133,678,243
	436,000,000		350,247,641

At the beginning of January the issues of the national banks had reached the limits assigned by Congress, the amount of their notes in circulation being $291,000,000.

An act was approved 2nd March, 1867, further simplifying internal revenue (Appendix B), and causing an estimated reduction of taxation to extent of $45,000,000; and it may be interesting to note, that on the same day an act was passed to establish a uniform law of bankruptcy throughout the Union.

Another act on same day authorised secretary of the treasury to issue temporary loan certificates to an extent not exceeding $50,000,000, bearing interest at rate not exceeding 3 per cent., and payable in lawful money on demand, for the purpose of retiring outstanding compound-interest notes; and

Yet another act, imposing new duties on wools and woollen cloths.

It divides wools into three classes, and imposes specific duties of about 30 per cent., and 10 or 11 per cent. additional *ad valorem*.

The duty on woollen cloths is fixed at 50 cents per pound, and 35 per cent. *ad valorem.*

On ready-made clothing 50 cents per pound, and 40 per cent. *ad valorem.*

Carpets, 50 per cent. *ad valorem.*

Oil-cloths for floors, 35 and 45 per cent. *ad valorem*, and

Oil-silk cloth, 60 per cent. *ad valorem.*

For the purpose of confining the notes in circulation to those furnished by the comptroller of the currency to the national banks, it was enacted by an act, approved 26th March, 1867, that all national banks should pay a tax of 10 per cent. on the notes of any town, city, or municipal corporation issued by them after 1st May.

The income and expenditure of the year 1866-67 proved to be:

Income.	$	*Expenditure.*	$
Customs	176,417,811	Civil service	51,110,027
Lands	1,163,576	Pensions and Indians	25,579,083
Direct tax	4,200,234	War	95,224,416
Internal revenue	266,027,537	Navy	31,034,011
Miscellaneous	42,824,852		202,947,537
		Interest on debt	143,781,592
	490,634,010		346,729,129

and the public debt at the close of the year amounted to $2,692,199,215. In the course of the year Mr. McCulloch had redeemed all outstanding certificates of indebtedness and deposit, and had converted more than $300,000,000 of the 7-30s into 5-20s. The 5-20s had consequently largely increased, and the annual charge for interest payable in gold had risen from $68,031,000 to $111,357,000 (Appendix C).

Some notes from Mr. McCulloch's annual report, presented to Congress in December, may close the first or historical part of this paper. Mr. McCulloch confessed that the resumption of specie payments was not likely to happen so early as he had predicted, but he thought it ought not to be delayed beyond the 1st January, or at the furthest the 1st July, 1869. To ensure this, however, it was most important, if not absolutely necessary, (1) that the remainder of the interest-bearing notes should be funded or paid, and the currency further contracted; (2) that public faith should be maintained in regard to the debt; (3) that the Southern States should be restored to their proper relations to the Federal Government. He deprecated the withdrawal of the power conferred upon him to retire United States' notes to the extent of $4,000,000 a month; and the substitution, in favour of which much had been said, of United States' notes for the issues of the national banks. He argued most strongly against the suggestion that the 5-20 bonds might be redeemed in paper; and with reference to the agitation which had arisen on the subject of the exemption of bondholders from State and Municipal taxation in respect of their bonds, submitted to Congress the propriety of creating a consolidated debt, carrying a nominal interest of 6 per cent., 5 per cent. to be paid to the holders of the bonds, and the remaining 1 per cent. to be distributed among the States in proportion to their population. The actual receipts and expenditure for the quarter ending the 30th September, 1867; and the estimated receipts and expenditures for the other three quarters were—

Receipts.			*Expenditure.*		
	September Quarter.	Estimate, Three Quarters.		September Quarter.	Estimate, Three Quarters.
	$	$		$	$
Customs	48,081,907	115,300,000	Civil service	13,152,348	37,000,000
Lands	287,460	700,000	Pensions and Indians	10,484,476	22,000,000
Direct tax	647,071	—	War	30,537,056	100,000,000
Internal revenue	53,784,027	155,000,000	Navy	5,579,705	22,000,000
Miscellaneous	18,361,463	25,000,000		59,753,586	181,000,000
			Interest on debt	38,515,640	114,000,000
	121,161,928	296,000,000		98,269,226	295,000,000
	417,161,928			393,269,226	

The estimates for the year 1868-69 were—

Receipts.	$
Customs	145,000,000
Land	1,000,000
Internal revenue	205,000,000
Miscellaneous	30,000,000
	381,000,000

Expenditure.	$
Civil service	51,000,000
Pensions	35,000,000
War	120,000,000
Navy	36,000,000
	242,000,000
Interest on debt	130,000,000
	372,000,000

I have entered at great length on the annals of American Finance; but I hope to be able to reduce the remainder of this paper within moderate compass.

Cash-Values Received for Debt Created.

It appears (Appendix C.) that the war-debt created amounted to \$2,846,021,742 – 68,482,686, or \$2,777,539,056; the difference between the maximum debt on the 31st August, 1865, and the debt on 4th March, 1861. The greater part of this was issued at *par* in paper, and no material error will arise if it be assumed that it was all so issued. Taking the periodic growth of the debt, and correcting by means of Appendix D, we find—

\$						\$
199,057,344	debt created between	4th March, 1861	and	31st Dec., 1861	(average value of paper *par*) =	199,057,344
246,671,341	„	31st Dec., '61	„	30th June, '62	(„ 97) =	239,271,201
207,457,356	„	30th June, '62	„	31st Dec., '62	(„ 80) =	165,965,885
372,124,454	„	31st Dec., '62	„	30th June, '63	(„ 66⅔) =	248,082,970
128,320,378	„	30th June, '63	„	30th Sept., '63	(„ 77) =	98,806,691
251,112,155	„	30th Sept., '63	„	2nd Feb., '64	(„ 66⅔) =	167,408,104
260,584,405	„	2nd Feb., '64	„	30th June, '64	(„ 56½) =	147,230,189
283,289,396	„	30th June, '64	„	31st Oct., '64	(„ 42½) =	120,397,993
349,855,562	„	31st Oct., '64	„	31st March, '65	(„ 47) =	164,432,114
315,637,949	„	31st March, '65	„	30th June, '65	(„ 70) =	220,946,564
163,428,716	„	30th June, '65	„	31st Aug., '65	(„ 70) =	114,400,101
2,777,539,056	total debt created.				Total cash value received.........	**1,885,999,156**

showing an average receipt for debt created 68 per cent.

The additional sums obtained by taxation over and above the nominal expenses of Government up to August, 1865, may be taken to have raised the actual cost of the war falling upon the Federation to \$2,000,000,000, or 400,000,000*l.* sterling.

Means by which Debt was Created.

A few remarks may be permitted on the means by which the debt was created. It will have sufficiently appeared from the statements before given, and it can be seen by an inspection of Appendix C, that the expedients used were generally of a very temporary character. One of the earliest was an issue of inconvertible paper, which was emitted to the extent exceeding \$400,000,000 in the first two years of the war. In the same period certificates of indebtedness—a form of security strictly analogous to Lloyd's bonds—were issued to the extent of \$156,000,000, and money was received on temporary deposit, the treasury competing with bankers, to the extent of \$102,000,000. The issue of inconvertible paper fatally depreciated the currency, and was the occasion of the great discrepancy between the amount of the debt created and the value received for it already noticed. Mr. Chase flattered himself that he was borrowing money at 6 per cent., at the later time when gold was at 100 premium and the real interest paid was 12 per cent. Mr. Fessenden borrowed money at 14 per cent., the premium on repayment at the end of twenty years at par being in each case left out of consideration. It will be remembered also that after the issue of inconvertible demand-notes had been practically arrested, the volume of notes circulating as legal tender was increased from two causes. The first was the issue of one and two year interest-bearing notes, which were declared legal tender for their face-value, and thus circulated with as much acceptance as the demand-notes. The second cause was the establishment of the national bank system. This system has been declared by Mr. McCulloch one of the compensations of the war, and the adoption of a paper currency circulating throughout the Union in the place of as many paper currencies as States, is undoubtedly a considerable advantage. But it was dearly bought. The essence of the system is, that wherever an association was formed and invested a certain capital in United States' bonds, and deposited them with the comptroller of the currency, it received from him notes to the extent of 90 per cent. of the bonds deposited. The association continued to receive the interest on the bonds, and its members received such interest as they would make as bankers by issuing the notes as cash; and the practical effect may be said to be that they received on their capital a bonus of 50 per cent. on the ordinary rate of interest in consideration of having invested it in United States' bonds. This is not all. The notes they issued being in truth secured by the same sanction as the United States' notes, depreciated the currency in proportion to the extent to which their total amount ($300,000,000) exceeded the State bank notes (estimated at $150,000,000) they displaced, and the Government thus became a further loser on the loans it was continually obliged to negotiate. Another circumstance requires to be noticed, though the bearing of it will be explained later. When the Federal Government seriously began to create a funded debt, it offered to capitalists exemption from State and Municipal taxation in respect of the securities they took up. The advantage thus conferred was of course given at the expense of the fellow citizens of those who lent their money.

From what Sources was the Money Received for the Debt obtained.

The valuation of property in the loyal States in 1850 has been stated (*ante*) to have been $4,728,247,586, and to have been $10,659,418,009 in 1860. These figures indicate an annual increment of 8·47 per cent., and would show that the annual addition to the wealth of the Northern States at the commencement of the war was $900,000,000. It is not necessary to place implicit reliance on these statistics, but they point to an immense energy of accumulation before the war, enabling the people to sustain its subsequent burdens. The war, however, not only demanded a constant flow of supplies, but withdrew from reproductive labour an army of workers, and we cannot be surprised if the annual saving soon fell below the un-reproductive demand. But to whatever extent saving continued, the devices of the Government were stretched to intercept its fruits. The issue of inconvertible paper gave the treasury the command of the coin in circulation, and it may, perhaps, be assumed that a sum of $200,000,000 was obtained by the demonetisation of gold and silver. The advantages offered to investors in Government securities, already dwelt upon, diverted to the treasury the savings of the people, and the inducement to lend to the Government became still stronger when taxation began to interfere with the business and profits of production. If we follow in imagination the career of the certificates of indebtedness with which the Government paid contractors, and the larger obligations issued, we must trace them to the hands of the bankers, who were the intermediaries between the saving classes and the treasury, while obligations in smaller sums not uncommonly passed directly to persons who held them for investment. It is impossible, however, especially in view of the facts mentioned in the next section of this paper, to resist the conclusion that the war consumed more than was saved, and trenched upon the accumulated capital of the people.

Immediate Consequences.

Capital.—The tax-valuations of the several States, if they were all accessible, would furnish us with a ready test of the truth of the conclusion that the capital of the American people had diminished. The following returns show the influence of the war on some of the Northern States and California:—

	Valuation, 1860.	Valuation, 1866.
	$	$
California	148,193,540	197,654,201
Connecticut	224,962,514	276,086,457
Illinois	366,702,043	392,327,904
Indiana	455,011,378	584,607,829
Iowa	197,823,250	215,063,401
Massachusetts	897,795,326	—
Michigan	275,762,771	307,965,840
Minnesota	35,564,493	57,388,511
Missouri	309,343,410*	332,681,668
New York	1,441,344,832	1,659,452,615
Ohio	888,302,601	1,106,208,921
Pennsylvania	595,591,994	—
Wisconsin	184,062,536	162,320,153

* The value of 114,931 slaves at an assumed average of $350 deducted.

The total valuation of these States in 1866 is $5,291,757,500, against $4,527,073,368 in 1860 (Massachusetts and Pennsylvania being excluded); but it must be remembered that the valuation of 1866 is expressed in paper which was at a discount of 30 per cent. Making the necessary correction, we find the valuation of the given States $3,704,230,250 in 1866, exhibiting a decline of 18·17 per cent. upon the valuation of 1860.

Taxation.—It is impossible to convey any accurate impression of the taxation which has resulted from the war without bringing into account the returns of the State and county taxation, which are not before me. I am able, however, to give the percentage of taxation on valuation in five representative cities in 1860 and 1866:—

	1860.	1866.
	Per cnt.	Per cnt.
New York	1·326	2·114
Boston	·803	1·367
Cincinnati	1·411	1·537
Chicago	1·000	2·000
San Francisco	2·224	1·970

figures which are in themselves sufficiently eloquent.

The State taxation had also increased, but it is uncertain in what proportion.

The Federal taxes are sufficiently exhibited in Appendices A and B; and the defects of the system of Federal taxation as it existed at the close of the war, have been freely confessed and even insisted upon by Mr. McCulloch and Mr. Wells. The impolicy of excise duties varying with the gross products of manufactures does not seem to have been adequately recognised, and as the principle of them lurks in one or two items of our own system it is worth exposing. It is plain that these duties on the gross value of manufactures are substantial impediments to a quick return of capital at small profits. The manufacturer must get more than the percentage of tax (in America 3 and 5 per cent.) on every sale to get any profit; and it is thus impossible to carry on trades except at prices admitting of large profits exclusive of taxation. The same or even a greater income might be obtained from these trades by the treasury, by the imposition of a very high proportional tax on profits, leaving the trader free to conduct his business so that the tax should be felt as little as possible by his customers.

Profits, Wages, and Prices.—With diminished capital and increased taxation a decline of trade, of profits, and of wages, and a rise of prices must follow. Appendix E, exhibits the course of export and import trade.

Mr. Joseph G. Martin, of Boston, has published the following statement of the dividends of manufacturing companies, payable in Boston, in the January of three consecutive years, which, quoted by me from "Hunt's Merchants' Magazine," may be accepted as an illustration of the course of profits:—

		$
January, 1866, aggregate dividends	....	3,384,850
" '67, "	....	2,590,750
" '68, "	....	1,120,000

There are no returns of wages in the United States, but the best authorities appear to agree in the opinion that the nominal rate has barely kept pace with the premium in gold; that is to say, that the labourer who obtained a dollar a day before the war, now receives $1·40 in paper. The course of prices are shown in Appendix F, the figures of which show that during the war itself, prices (excluding cotton) actually fell, but have since risen about 37 per cent. over the prices prevalent before the war. It will be observed that the prices are throughout reduced to a gold standard.

Management of the Finances since the War.

At the close of the war the inhabitants of the North were naturally much excited by their success in preserving the unity of the Republic, and their excitement not uncommonly found vent in contemptuous disparagement of the burden of the debt it had entailed upon them. The wildest prophecies were uttered as to its immediate redemption, and it was even proposed that it should be at once extinguished by a voluntary subscription. It may be seen in Appendix C, that the debt was in fact reduced by $170,000,000 in little over the twelve months; and great praise was bestowed upon this on this side of the Atlantic, apparently without much consideration, or perhaps, knowledge of the circumstances of the situation. If the deductions hereinbefore drawn be correct, it must be manifest that it was the part of an American financier at the close of the war to reduce and reform the system of taxation which had been adopted, and to postpone to a better time all efforts to diminish the capital of the debt. It is but just to Mr. McCulloch to observe that he must not be blamed for the policy so hastily praised. The differences between the executive and legislative branches of the Government have prevented the acceptance by Congress of many of his suggestions, and of late Congress has indeed acted in direct violation of his advice. One point of policy which is undoubtedly due to Mr. McCulloch may, however, be noticed. Appendix C shows that the debt has been varied since 1865, by the withdrawal of demand-notes to the extent of $70,000,000, the reduction of the debt upon which interest was payable in paper to the extent of $850,000,000, and the increase of the debt bearing interest in gold to extent of $720,000,000. The conversion of the debt bearing interest in paper as it matured into a debt bearing interest in gold was, probably, to a great extent inevitable, but the reduction of the currency, as long as there remained a debt such as the legal-tender interest-bearing notes payable in currency, appears to require justification. It is plain that the reduction of the currency produces an appreciation of the value of this debt, and therefore increases the cost of its redemption. Mr. McCulloch's motive has been a desire to bring back specie payments at the earliest opportunity; but, without questioning the accuracy of his exposition of the evils of the process of inflation, it may be doubted whether he has not exaggerated the mischief of a redundant circulation after the inflation has been completed. Without some further arguments in its behalf, I should demur to the position that the advantage of reducing a redundant currency which had reached a fixed limit, is a compensation for the loss on the redemption in that currency of debts expressly made payable in it.

Future Policy.

It is easy to criticise the past, but a few remarks may be hazarded at the close of this long paper on the future financial policy of the Union.

First. What are its liabilities? The interest on the public debt may be taken at $130,000,000 in gold (about exactly the same as our own charge for interest). The capital is $2,640,000,000, out of which interest is payable in gold on $2,000,000,000. In what medium is the capital upon which the gold interest is paid redeemable? It will have been seen (*ante*) that the acts authorising its creation are for the most part silent upon this point, and it has been contended that the lawful claims of the public creditor cannot require more than payment in paper. On the other hand, it has been insisted upon that the secretaries of the treasury (*ante passim*) have always declared that the capital would be redeemed in gold, their agents for negotiating the debt have embodied the declaration in their advertisements, and all prominent members of Congress during the war by express declaration, and Congress itself by inaction, approved and sanctioned these statements. In answer to the plea that no legal obligation can arise out of these circumstances, it has been retorted, that the obligations of nations are never more than obligations of honour, since there is no legal process capable of being set in motion against them. These considerations appear to me sufficient to establish the obligation to repay the bonded debt of the Union in gold; but they do not exhaust the argument in favour of this position. The peculiar constitution of the United States allows the nation itself to be impleaded in the Supreme Court, and if the holder of a 5-20 bond at the end of twenty years from its date brought an action for its amount, he would be entitled to recover it in gold. The argument on the construction of the statute of the 25th February, 1862, from the previous usage of the Union, admitting only coin as legal tender in discharge of debts, and from the provision contained in it for the establishment of a sinking fund would be irresistible. It is, indeed, open to doubt whether a suit could not now be sustained by a holder of United States' bonds to compel the treasury to keep apart and administer the receipts of the customs in conformity with the unrepealed provision.

The exemption of bondholders from State and municipal taxation is another part of the bargain between the Union and its creditors which cannot be infringed. The impolicy of the exemption must be admitted; but the obligation of respecting the privilege is too clear to justify any discussion, nor should I refer to it but for the numerous disguises under which proposals to evade it have been advanced by persons in authority.

The ordinary expenditure for the current and for the coming years have been estimated at $240,000,000, an amount which, when reduced to its equivalent in gold, is about two and a-half times the average cost of Government before 1861. The possibility of reducing this amount has been insisted upon very recently by Mr. Wells, in a further report to Congress, and he estimates the total within which the expenditure could be brought at $140,000,000. It would probably be safe to take the possible limit of normal expenditure at $200,000,000.

I have dwelt upon a frank recognition of the obligations of, and demands upon the Federal Government, because I regard this as the first step towards the adoption of a sound financial policy. Mr. McCulloch has defended the exemption of the public debt from State taxation because it tends to keep the debt within the Union. I would submit, on the contrary, that the leading principle of an American financier should be to make his country the Savings Bank of Europe, and it is for this purpose that it is so needful to be prompt in the confession of national liabilities. Confidence in American responsibility should be supported by legislative declarations of obligations, and by the maintenance of an adequate revenue raised by the least onerous system of taxation. At present the annual demand on the treasury ($130,000,000 in gold for interest, and $240,000,000 for cost of Government) is barely met by very heavy customs' duties and internal duties still complex and repressive of production. Some alleviation of these burdens might be obtained, and the treasury at the same time strengthened, by the substitution of a

Direct Tax in lieu of the worst excise and customs' duties. It would be necessary to amend the constitutional enactment regulating Direct Taxes, a provision founded on political conceptions now obsolete and, indeed, scarcely intelligible; but were this altered, so as to admit of a tax being levied subject simply to the law of proportional imposition, it might be collected through the existing machinery of the separate States with great ease, and at comparatively slight expense. The imposition of a Direct Tax would not, however, justify the abolition of the Income Tax. The Direct Tax leaves comparatively untouched professional persons and others whose incomes are large compared with their visible capital; while the Income Tax presses upon the same persons with unequal severity. The defects of these imposts thus balance one another, and the two, in conjunction with indirect taxes, affecting the less wealthy classes, would constitute a reasonably perfect system of taxation. I would add that I am aware that this suggestion and all other suggestions must, in the present divisions of the American Government, be regarded as idle theorising; but the time is at hand when both the legislative and executive branches of the Government must be re-created by the popular will, on which they rest, and, with the restoration of agreement between them, the finances of the Union must be among the first objects of their joint care.

APPENDIX.

A.—Table showing the Duties Levied by each United

Date of Tariff.	Distilled Spirits.	Glass.	China.	Sugar.	Coffee.	Pig Iron.	Manufactured Iron.
	Galls.	Per cnt.	Per cnt.	Per lb.	Per lb.	Per cnt.	Per cnt.
July 4, 1789....	10 cents	10	10	1 cent	2½ cts.	5	5
Aug. 10, '90....	15 „	12½	12½	1½ „	4 „	5	7½
May 2, '92....	28 „	15	15	1½ „	4 „	10	10
June 7, '94....	28 „	20	15	1½ „	4 „	15	15
Mar. 3, '97....	29 „	20	15	2½ „	5 „	15	15
„ 26, 1804....	29 „	22½	17½	2½ „	5 „	17½	17½
July 1, '12....	60 „	40	30	5 „	10 pr. ct.	30	30
April 27, '16....	42 „	20	20	3 „	5 cents	20	20
May 22, '24....	42 „	30 + 3 c. p. lb.	20	3 „	5 „	$10 per ton	25
„ 19, '28....	57 „	„	20	3 „	5 „	$12½ „	25
July 14, '32....	57 „	„	20	2½ „	Free	$10 „	25
Mar. 2, '33 *	—	—	—	—	—	—	—
Sept. 11, '41....	20 p. ct.	20	20	20 per cent.	Free	20	20
Aug. 30, '42....	60 c.	30 + 6c. p. lb.	30	2½ cents	„	$9 per ton	30
„ 6, '46....	100 p. ct.	40	30	30 per cent.	„	30	30
March 3, '57....	30 „	30	24	24 „	„	24	24
„ 2, '61....	40 cents	„	30	¾ cent	„	$6 per ton	30
Aug. 5, '61†....	50 „	„	„	2 „	4 cents	$6 „	30
Dec. 25, '61....	„	„	„	2½ „ and upwards	5 „	„	„
Aug. 1, '62....	$1	„	40	2½ „ and upwards	„	$6 „	30 + miscellaneous special duties
July 1, '64 ‡	$2	35	50	3 „ and upwards	„	$9 „	35 + miscellaneous special duties
April 1, '65....	$2·50	„	„	„	„	„	„
March 2, '67....	„	„	„	„	„	„	„

* When duty exceeds 20 per cent. the excess to be reduced biennially

† 40 cents additional 7th March to 1st July, 1864. ‡ And also

APPENDIX.

States' Tariff upon the Principal Classes of Imports.

Bar, Rolled, Iron.	Clothings.	Cottons.	Woollens.	Tea.	Leaf Tobacco.	Average Duty shown by Proportion of Customs Revenue to Value of Dutiable Imports.	Date of Tariff.
Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per lb.	Per lb.	Per cnt.	
5	7½	5	5	Free	—	—	July 4, 1789
7½	7½	7½	7½	„	—	—	Aug. 10, '90
10	10	10	10	„	—	—	May 2, '92
15	10	15	15	„	—	—	June 7, '94
15	10	17½	15	„	—	—	Mar. 3, '97
17½	12½	20	17½	„	—	—	„ 26, 1804
30	25	40	30	„	—	—	July 1, '12
$30 per ton	30	25	25	12 to 50 cents per lb.	—	34½	Apl. 27, '16
$30 „	30	25	20	12 to 50 cents per lb.	—	38½	May 22, '24
$36 „	50	25	45	12 to 50 cents per lb.	—	41½	„ 19, '28
$30 „	50	25	50	Free	—	31½ 1832 to 1841	July 14, '32
—	—	—	—	—	—		Mar. 2,* '33
20	20	20	20	„	—	23¼ '42	Sept. 11, '41
$25 per ton	50	30	40	„	—	33	Aug. 30, '42
30	30	25	30	„	—	24½	„ 6, '46
24	24	19	24	„	—	20¼	Mar. 3, '57
$15 per ton	30	30	25 + 12c. pr. lb.	„	—	—	„ 2, '61
$15 „	30	30	25 + 12c. pr. lb.	15 cents per lb.	—	—	Aug. 5, '61
„	„	„	„	20 cts. per lb.	—	—	Dec. 25, '61
$15 p. tn. + $2 to $5 pr. ton	35 pr. ct. + 6 cents per lb.	30 + special duties from 5 to 10 p. c.	30 + 18 cts. per lb.	„	25 cts. lb.	—	Aug. 1, '62
1 c. and 1½ c. p. lb.	40 pr. ct. + 24 cts. per lb.	5 c. sq. yard and upwards. + 10 to 20 per cent.	40 + 24 cts. per lb.	25 cts. per lb.	35 cts. lb.	43½	July 1,‡ '64
adnl. 10c. per cwt.	„	additional scale.	„	„	„	—	April 1, '65
„	40 pr. ct. + 50 cts.	„	35 + 50 cts. per lb.	„	„	—	Mar. 2, '67

until it should cease in 1842.

10 per cent. discriminating duty on goods imported in foreign vessels.

B.—*The Inland Revenue Acts of the United States.*

A.—*Income and Receipt Taxes.*

	Act, 1st July, 1862.	Act, 3rd March, 1863.	Act, 1st July, 1864.	Act, 1st April, 1865.	Act, 1st August, 1866.	Act, 1st March, 1867.
Receipts.	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.	Per cnt.
Rail and steam boats worked by steam	3	—	2½	—	—	—
Rail and ferry boats not steam	1½	—		—	—	—
Bridge tolls	3	—	—	—	—	2½
Telegraph companies	—	—	5	—	3	—
Insurance companies and insurers	1	—	1½	—	—	—
Advertisers	3	—	—	—	—	Exempt
Express companies	—	2	3	—	—	—
Theatres, &c.	—	—	2	—	—	—
Lotteries	—	—	5	—	—	—
Income (including Dividends, &c.).						
Over $600 and less than $10,000	3 on excess over $600	—	5 pr. ct. up to $5,000, 7½ p. c. up to $10,000	5 pr. cnt. up to $5,000	—	5 per cent. on incomes over $1,000
Over $10,000	5	—	10	10 pr. cnt. over $5,000	—	
Residents abroad	5	—	—	—	—	

B.—*Assessed Taxes.*

	Act, 1st July, 1862.	Act, 1st July, 1864.	Act, 1st August, 1866.
Carriages	$1 to $10	—	Below $300, including harness, exempt. Above, $6 and $10
Yachts	$5 and upwards at rate of 1 per cent. of value	—	—
Billiard tables (private use)	$10	—	—
Gold plate	50 cents per oz.	—	—
Silver plate (over 40 oz.)	3 „	5 cents	—
Gold watches	—	$1 and $2	—
Pianos	—	$2 to $6	—

C.—*Legacy and Succession Duties.*

	Act, 1st July, 1862. *Personalty* over $1,000.	Act, 1st July, 1864. Personalty and Realty.
	Per cnt.	Per cnt.
Lineal, or brother or sister	·75	1
Descendant of brother or sister	1·50	2
Uncle, &c., or descendants	3·	4
Great uncle	4·	5
All others and bodies corporate	5·	6
Husband and wife	Free	—

B.—*The Inland Revenue Acts of the United States (Parts of)*—*Contd.*

D.—*Excise Duties (Manufactures and Sales).*

Articles.	Act, 1st July, 1862 (put in Operation 1st September).	3rd March, 1863.	1st July, 1864.	1st April, 1865.	1st August, 1866.	1st March, 1867.
Spirits	20 c. gallon 1st proof (*i.e.* 50°* Tralle's hydr. 60° F.)	—	$1·50 to 1st Jan., 1865, and $2 afterwards	20 p. cnt. additional on all duties not specifically altered	20 per cent. dropped	
Beer	$1 bar. 31 gals.	60 c.	$1			
Mineral coals	3½ c. per ton	—	5 cents		Exempt	—
Land and seed oils	2 c. per gal.	—	5 „		„	—
Gas	5 to 15 c. per 1,000 ft.	—	10 to 25 cts.			
Candles	—	—	5 per cent.			
Coal and rock oils	10 c. per gal.	—	20 c. per gal.			
Ground coffee	3 m. per lb.	—	1 cent			
„ spices	1 c. „	—	—			
Cotton	½ c. „	2 c. per lb.†	—	—	3 cents	2½ c. from 1st Sept.
Brown sugar	1 c. „ ‡	—	2 c., and 2½ pr. cent.	—	1 c. and 2½ pr. ct.	—
Cavendish, cut, or manufactured tobacco	10 to 15 c. per lb.	—	15 to 35 cts.	15 to 40 c.	—	—
Snuffs	20 c. per lb.	—	35 cents	40 cents	—	—
Cigars	50 c. to $3·50 per 1,000	—	$3 to $40	$10	$2 to $4	$5
Umbrellas	5 per cent.	3 p. cent.	5 per cent.	—	Exempt	—
Railroad iron	$1·50 per ton	—	$3	—	„	—
Unenumerated articles	3 per cent.	—	—	—	Struck out	—
Ships	—	2 p. cent.	—	—	Hulls exempt	—
Salt	—	—	6 c. per cwt.	—	3 cents	Exempt
Auction sales	1/10th per cent.	—	¼ per cent.	—	1/10th	—
Slaughtered beasts—						
Horned, over 18 months	30 c. per head	20 c. per head	40 cts. (over 3 months)	—	Repealed	—
Horned, under 18 months	5 c. „	—	—	—		
Hogs, over 6 mos.	10 c. „	6 c. per head	10 cents	—		
Sheep	5 c. „	3 c. per head	5 „	—		

* 60 cents from 7th March to 1st July, 1864.

† By Act 7th March, 1864.

‡ Raised to 2 cents per lb. by special Act 16th July, 1862.

B.—*The Inland Revenue Acts of the United States (Parts of)*—*Contd.*

E.—*Licences.*

Trades, &c.	Act, 1st July, 1862.	Act, 3rd March, 1863.	Act, 1st July, 1864.	Act, 1st April, 1865.	Act, 1st August, 1866.	Act, 1st March, 1867.
Lottery ticket dealers	—	$1,000	$100	—	—	—
Bankers Wholesale liquor dealers Theatre keepers	$100	—	Bankers, an additional $2 for every $1,000 of capital over $80,000. Wholesale liquor dealers same as other wholesale dealers	Substitute brokers $100 and $10 for every substitute	Wholesale liquor, $100 up to $50,000, + $1 per $1,000, brewers, distillers	—
Circus keepers Wholesale dealers, not liquor Pawnbrokers Distillers, over 300 barrels Brewers, over 500 barrels Brokers Coal oil distillers	$50	Wholesale dealer's licences made progressive from $50 at final rate of $25 per $100,000	Wholesale dealers, progressive at rate of $1 p. $1,000. Pawnbrokers an additional $2 per $1,000. Foreign insurance agents Gift—*entrepreneurs*	—	Wholesale dealers $50, + $1 per $1,000. Gift—*entrepreneurs* $150	—
Land warrant brokers Distillers, less 300 gallons Brewers, less 500 gallons	$25	Builders, contractors	Retail liquor dealers	Insurance brokers	—	—
Auctioneers Retail liquor dealers Jugglers	$20	—	Commercial brokers	—	Auctioneers $10 and $20	—
Retail dealers, not liquor Eating-house keepers Tobacconists, not hotel keepers Exhibition proprietors Confectioners Horse dealers Livery stable keepers Cattle keepers Tallow chandlers Soap makers Apothecaries Lawyers and other professions Manufacturers manufacturing more $1,000 p. an.	$10	Architects, civil engineers, butchers, owners of stallions and jacks, insurance agents	Cattle brokers, prog. $1 p. $1,000 Conveyancers, intelligence office, and every other business, trade, or profession	Expressmen, miners General clause struck out	—	Apothecaries, butchers, confectioners to pay additional dollar p. $1,000 on sales over $25,000

B.—*The Inland Revenue Acts of the United States (Parts of)—Contd.*

E.—*Licences—Contd.*

Trades, &c.	Act, 1st July, 1862. Progressive Duties.	Act, 1st July, 1864.
Rectifiers	$25 for every 500 barrels of not more than 40 gals.	—
Hotel keepers	$5 to $200 as rent is <$100 and ≮$10,000	$10 below $200 rental, above $5 per $100
Bowling alleys and billiard tables	$5 each alley or table	$10 each alley or table
Peddlers	$5 to $50	$10 to $50
Photographers	$10 to $25	—
Assayers	—	$100 to $500

F.—*Stamps.*

	Act, 1st July, 1862.	Act, 3rd March, 1863.	Act, 1st July, 1864.
Passports	$3	—	$5
Bills of exchange	5 cents per $100 to $1 per $2,500	½ per cent. per month	5 cents per $100
Conveyances	$1 per $1,000, but above $20,000, $2 per $1,000	Maximum stamp $1,000	50 cents per $500
Probate	$1 per $5,000	—	50 cents per $1,000
Receipt and telegraph stamps	1 cent and upwards	—	2 cents and upwards
Lottery tickets	—	50 per cent.	—

B*.—*Proceeds of Inland Revenue of the United States.*

[000's omitted.]

	1862-63.	1863-64.	1864-65.	1865-66.	1866-67.
	$	$	$	$	$
Manufactures, 3 per cent. and specific	24,403,	75,461,	104,389,	178,357,	146,224,
Slaughtered animals	711,	699,	1,261,	1,292,	262,
Cotton tax	—	—	—	18,410,	23,769,
Gross receipts	1,341,	2,903,	8,891,	11,262,	7,445,
Licences	6,824,	7,178,	12,613,	18,016,	18,104,
Income	456,	14,933,	20,740, 28,929,*	60,894,	57,041,
Banks, railroads, &c.	1,911,	7,018,	14,386,	13,049,	—
Stamps	4,140,	5,695,	11,162,	15,044,	16,095,
Legacies†	57,	311,	547,	1,169,	1,861,
Miscellaneous	—	—	—	—	—
	41,003	117,146,‡	211,139,	310,907,	266,028,

* Special resolution.

† Succession to realty, added from 1st July, 1864.

‡ Including $285,676 refunded.

C.—*United*

[000's omitted.]

	4th March, 1861.	31st December, 1861.	30th June, 1862.	31st December, 1862.	30th June, 1863.	30th September, 1863.*	30th June, 1864.
	$	$	$	$	$	$	$
Debt Bearing Interest in Gold—							
5 per cent.	—	30,595,	30,595,	30,595,	30,483,	30,483,	29,074,
6 "	—	112,395,	93,451,	91,033,	89,101,	88,052,	114,280,
7$\frac{3}{10}$ "	—	100,000,	122,837,	139,997,	139,971,	139,679,	113,591,
6 " (5-20s)	—	—	9,975,	25,051,	168,880,	278,512,	510,757,
5 " (10-40s)	—	—	—	—	—	—	72,005,
Total at gold interest	—	242,990,	256,858,	286,676,	428,435,	537,726,	839,717,
Debt Bearing Interest in Paper—							
7·30 per cent. (3 yrs.)	—	—	—	—	—	—	—
6 " certificate indebtedness	—	—	49,882,	101,321,	156,784,	156,919,	156,531,
5 per cent. certificate deposit	—	—	57,746,	80,236,	67,003,	104,934,	9,396,
4 per cent. certificate deposit	—	—	—	—	35,381,		662,
6 per cent. certificate deposit	—	—	—	—	—	—	64,960,
5 and 6 per cent. legal tender notes 1 and 2 years	—	—	—	—	—	—	164,592,
6 per cent. C. P. R. R. Bonds	—	—	—	—	—	—	—
Total at paper interest	—	—	107,628,	190,557,	259,168,	261,853,	396,141,
Debt not Bearing Interest—							
Demand notes (gold)	—	24,551,	53,040,	—	—	—	—
Demand notes (legal tender)	—	—	96,620,	244,366,	390,993,	404,759,	426,573,
Demand notes (fractional)	—	—	—	—	20,192,	17,776,	21,817,
Current and overdue debt	—	—	—	—	—	—	49,562,
Deposit certificates (gold)	—	—	—	—	—	—	—
Total no interest	—	—	149,660,	244,366,	41,190,	422,535,	497,952,
Total debt	68,483,	267,541,	514,211,	721,669,	1,098,793,	1,222,114,	1,733,810,
Amount, Interest Payable—							
Gold	—	—	—	—	—	—	—
Paper	—	—	—	—	—	—	—

* On 2nd February, 1864, aggregate debt was $1,473,225,714.

States Debt.

[000's omitted.]

31st October, 1864.†	30th June, 1865.‡	31st December, 1865.	30th June, 1866.	31st December, 1866.	30th June, 1867.	31st December, 1867.	
$	$	$	$	$	$	$	
							Debt Bearing Interest in Gold—
27,022,	27,022,	27,022,	27,022,	—	—	—	5 per cent.
289,784,	303,613,	301,985,	306,869,	311,274,	311,927,	311,367,	6 ”
14,146,							$7\frac{3}{10}$ ”
548,539,	606,569,	665,371,	718,323,	891,125,	1,127,532,	1,373,805,	6 ” (5-20s)
81,680,	172,770,	172,770,	171,219,	198,091,	198,431,	204,930,	5 ” (10-40s)
961,171,	1,109,974,	1,167,148,	1,223,423,	1,400,490,	1,637,891,	1,890,102,	Total at gold interest
							Debt Bearing Interest in Paper—
76,668,	671,610,	830,000,	806,252,	676,857,	488,048,	238,268,	7·30 pr. ct. (3 yrs.)
236,373,	115,772,	60,667,	26,391,	—	—	—	6 ” certificate indebtedness
1,611,	—	—	—	—	—	23,265,	5 per cent. certificate deposit
548,	89,717,	97,257,	120,176,	—	—	—	4 per cent. certificate deposit
45,990,	—	—	—	—	—	—	6 per cent. certificate deposit
222,849,	236,095,	188,549,	162,466,	144,901,	122,394,	46,245,	5 and 6 per cent. legal tender notes, 1 and 2 years
—	1,258,	3,002,	6,042,	10,622,	14,762,	20,718,	6 per cent. C. P. R. R. Bonds
584,039,	1,114,452,	1,179,475,	1,121,327,	832,380,	625,804,	328,491,	Total at paper interest
							Debt not Bearing Interest—
—	—	—	—	—	—	—	Demand notes (gold)
433,161,	433,161,	426,231,	400,891,	380,498,	371,992,	356,159,	Demand notes (legal tender)
20,725,	25,006,	26,001,	27,071,	28,733,	28,307,	31,598,	Demand notes (fractional)
18,003,	—	1,167,	—	16,518,	8,998,	15,872,	Current and overdue debt
—	—	7,288,	10,714,	16,443,	19,207,	20,105,	Deposit certificates (gold)
471,889,	458,167,	460,687,	438,676,	442,192,	428,504,	423,733,	Total no interest
2,017,099,	2,682,593,	2,807,310,	2,783,426,	2,675,062,	2,692,199,	2,642,326,	Total debt
							Amount, Interest Payable—
56,647,	—	68,031,	—	—	—	111,357,	Gold
28,667,	—	70,186,	—	—	—	19,331,	Paper

† On 31st March, 1865, the aggregate debt was $2,366,955,077.

‡ The debt reached its maximum on the 31st August, 1865, $2,846,021,742.

D.—*Average Premiums on Gold at New York in each Month.*

	1862.	1863.	1864.	1865.	1866.	1867.
January	3⅝	43	54	117	40	34
February	3⅝	60*	59	105	38	37
March	1⅞	50	64	75	30	35
April	1¼	51	75	51	27	36
May	3⅛	49	80	35	31	36
June	6	46	109	40	49	37
July	14¼	31	155†	42	51	39
August	14¼	26	155	43	48	41
September	17⅛	33	124	44	45	43
October	27	47	108	45	49	44
November	31	47	130	46	43	40
December	31	52	128	46	36	34
Half-yearly Average—						
January–June	3	50	73	70	36	36
July–December	22	39	133	44	45	40

* On 28th February, 71.

† Range in this month frequently 15 in a day, and on 1st July was from 125 to 185.

E.—*Exports from, and Imports into, the United States,* 1856-66.

[000's omitted.]

Year ending	Total Imports.	Total Exports, exclusive of Specie.		Specie Exported.	Total Exports.	Total Imports and Exports.
		Paper Values.	Specie Values.			
	$	$	$	$	$	$
30th June, 1856	314,640,	—	281,219,	45,745,	326,964,	641,604,
" '57	360,890,	—	293,823,	69,137,	362,960,	723,850,
" '58	282,613,	—	272,011,	52,633,	324,644,	607,257,
" '59	338,768,	—	292,902,	63,887,	356,789,	695,557,
" '60	362,166,	—	333,576,	66,546,	400,123,	762,289,
" '61	286,598,	—	215,806,	28,165,	243,971,	530,569,
" '62	275,357,	193,051,	= 192,761,	36,888,	229,649,	505,006,
" '63	252,920,	258,967,	= 190,417,	63,392,	253,809,	506,729,
" '64	329,563,	232,594,	= 149,098,	69,390,	218,488,	544,051,
" '65	234,434,	282,349,	= 141,175,	54,348,	195,523,	429,957,
" '66	437,640,	477,858,*	= 341,327,	86,044,	427,371,	865,011,

Note.—The director of the statistical bureau writes, the totals are not trustworthy for the period 1861-65 inclusive.

* Value of cotton $281,385,223.

F.—*Comparative Prices at New York on 3rd January in each Year.*

		Average, 1856-61.	Average, 1862-65.	Average, 1866-68.	Percentage of Increase (+) or Decrease (−) 1862-65 over 1856-61.	Percentage of Increase (+) or Decrease (−) 1866-68 over 1856-61.
		s.	*s.*	*s.*		
Ashes, pot, ...	100 lbs.	24·20	23·21	25·25	− 4·	+ 4·
„ **pearl**	„	25·42	24·62	29·22	− 3·	+ 15·
***Bread Stuffs*—**						
Wheat flour, State	barrel	21·84	19·07	29·4	−12·2	+ 34·9
„ **Genesee**	„	33·17	27·95	43·7	−15·65	+ 31·45
Cornmeal, Jersey	„	14·	13·5	15·15	− 3·55	+ 8·1
Wheat, white, Genesee	bushel	6·43	5·	8·6	−21·87	+ 34·37
Oats, State	„	1·82	1·99	2·05	+ 9·33	+ 12·55
Corn, old, Western	„	3·11	2·9	2·88	− 6·75	− 7·5
Cotton, mid. upland	lb.	·44	1·92	1·31	+ 336·4	+ 197·6
Fish, dry cod	qtl.	15·25	15·14	22·6	− ·75	+ 47·5
Hay, shipping	100 lbs.	3·47	3·15	3·15	− 9·25	+ 9·25
Hemp, rough American,	ton	600·	840·	—	+ 40·	—
Iron, Scotch pig	„	105·7	104·	128·8	− 1·1	+ 21·9
„ **English bar**...........	„	232·	254·	313·	+ 9·5	+ 35·
Lead, Galena	„	24·6	27·9	—	+ 13·4	—
Leather, hembock, sole, light	lb.	1·	·84	·94	−16·	− 6·
Leather, oak	„	1·23	1·04	1·08	−15·5	− 12·2
Lime, cor. rockland........	barrel	3·3	2·7	4·6	− 8·1	+ 39·3
Liquors, new cognac	gal.	15·3	15·87	—	+ 3·7	—
„ **Dom. whiskey,**	„	1·35	2·09	6·86	+ 54·65	+ 408·15
Molasses, New Orleans	„	1·94	1·98	2·82	+ 2·5	+ 45·35
Oils, crude, whale	„	2·5	2·45	3·5	− 2·	+ 40·
„ „ **sperm**	„	5·5	4·7	7·08	−14·5	+ 28·8
„ **linseed**	„	2·63	3·36	3·7	+ 27·8	+ 40·75
***Provisions*—**						
Pork, old mess	barrel	67·35	55·56	67·6	−17·5	+ ·4
„ **prime**	„	52·8	43·3	57·95	−18·	+ 9·8
Beef, city mess............	„	39·8	29·45	51·9	−26·	+ 13·4
„ **hams, extra**	„	62·3	50·2	97·	−19·4	+ 55·65
Hams, pickled	lb.	·37	·26	·4	−29·15	+ 8·1
Lard	„	·43	·34	·4	−20·9	− 7·
Butter, Ohio................	„	·7	·67	·96	− 4·3	+ 37·15
„ **State**	„	·83	·78	1·33	− 6·	+ 60·25
Cheese	„	·4	·34	·5	−15·	+ 25·
Rice	100 lbs.	16·5	20·94	27·55	+ 26·9	+ 66·95
Salt, Liverpool, ground	sack	3·55	3·93	2·93	+ 10·75	− 17·6
Sugar, Cuba, good	lb.	·3	·27	·33	−10·	+ 10·
Tallow	„	·43	·33	·34	−23·35	− 20·9
Wool, common fleece	„	1·37	1·9	1·96	+ 38·7	+ 43·05
Average		—	—	—	+ 6·57	+ 36·97
„ **(excluding cotton)**		—	—	—	− 2·34	+ 32·26

Note.—1856-62, reduced at the rate of 4*s.* per dollar; 1863, gold at 133 at 3*s.* per dollar; 1864, gold at 154, at 2*s.* 8*d.* per dollar; 1865, gold at 226, at 1*s.* 9*d.* per dollar; 1866, gold at 142, at 2*s.* 10*d.* per dollar; 1867-68, gold at 133, at 3*s.* per dollar.

TOPOGRAPHICAL CLASSIFICATION *of the* AGRICULTURAL STATISTICS *of* ENGLAND *for* 1867, ILLUSTRATED.

THE agricultural statistics of England and Wales (pp. 249—253) are presented in this as in a previous number of the *Journal*, classed in topographical sections, in preference to following the crude alphabetical arrangement found in the blue book which is laid before Parliament. A few words, and only a few words, upon the scientific value of this classification are needed to show its advantages over the official form of abstract. It is now upwards of twenty-five years since Dr. Farr formed the registration counties of the kingdom into eleven groups for the purposes of tabulating the returns of births, deaths, and marriages in the General Register Office. Greater prominence was given to the new classification by its use in the elaborate census of 1851. The Commissioners entrusted with the conduct of that great statistical operation, described the scheme (which however, as will be found, applied to the whole of Great Britain) in these words:—

"For the convenience of statistical investigation, Great Britain has been divided by the Registrar-General into thirteen topographical "Divisions," consisting of groups of counties thought to possess a common distinctive character; and the islands in the British seas form a small additional division by themselves. The arrangement of the tables in the present publication, as well as in the general abstract of the numbers of the inhabitants already issued, is in accordance with this sub-division of the country.

"England and Wales contains eleven of such 'Divisions,' which (arranged in topographical order) are as follows:—

"I. *London*, comprising the portions of Middlesex, Surrey, and Kent, within the limits of the Registrar-General's bills of mortality.

"II. *South-Eastern Division*, comprising Surrey and Kent (extra metropolitan) Sussex, Hampshire and Berkshire.

"III. *South-Midland Division*, comprising Middlesex (extra metropolitan) Hertfordshire, Buckinghamshire, Oxfordshire, Northamptonshire, Bedfordshire, and Cambridgeshire.

"IV. *Eastern Division*, comprising Essex, Suffolk and Norfolk.

"V. *South-Western Division*, comprising Wiltshire, Dorsetshire, Devonshire, Cornwall and Somersetshire.

"VI. *West-Midland Division*, comprising Gloucestershire, Herefordshire, Shropshire, Staffordshire, Worcestershire and Warwickshire.

"VII. *North-Midland Division*, comprising Leicestershire, Rutland, Lincolnshire, Nottinghamshire and Derbyshire.

"VIII. *North-Western Division*, comprising Cheshire and Lancashire.

"IX. *York Division*, consisting of Yorkshire.

"X. *Northern Division*, comprising Durham, Northumberland, Cumberland and Westmoreland.

"XI. *Welsh Division*, comprising Monmouthshire, South Wales and North Wales.

"The counties of which the eleven divisions of England and Wales are composed are not strictly identical with the ancient counties, but are aggregates of entire registration districts or poor law unions (which often, under the arrangements of the Poor Law Board, extend into two counties), and in the tables are called for the sake of distinction, 'Registration Counties.' Where a district or union extends into more than one county, the principle adopted has been to place it with that county in which either the chief town or the greater part of the population is located, hence the registration counties differ more or less from the counties proper according to the degree in which the boundaries of the latter have been, for local convenience, disregarded in the formation of the unions."

The last English census was also printed and issued according to the same topographical divisions.

In 1857 the Poor Law Board recast the form, while they enlarged the scope of their statistical returns to Parliament, arranging them strictly in conformity with the census classification of unions and counties. Under the general title of "Poor Rates and "Pauperism," those returns have been given to the public in the same form up to the present time.

For the purpose of exhibiting the utility of this classification, six of the principal descriptions of cropping have been selected, their respective ratios computed divisionally and represented by colours on the maps appended. The exact proportions are given in the subjoined table, but the same precision is not obtainable in an ordinary map; the chromatic exponent is only true within the limits noted on the face of each plate.

The ratios in this statement express the percentage of each kind of culture named to the whole cultivated surface, including under that term "all kinds of crops, bare fallow, and grass," in quantity amounting, for England and Wales, to 25,451,000 statute acres.

Divisions.	Percentage of Corn Cropped Land.	Percentage of Green Cropped Land.	Permanent Pasture Meadow and Grass.	Percentage of Wheat Land.	Percentage of Barley Land.	Percentage of Oat Land.
I. The Metropolis	—	—	—	—	—	—
II. South-Eastern	36·5	14·2	32·9	16·0	7·2	8·6
III. South-Midland	41·7	11·5	34·9	18·1	10·7	5·7
IV. Eastern	47·5	16·2	20·0	20·3	16·9	3·5
V. South-Western	26·6	12·8	43·1	11·2	7·4	6·2
VI. West-Midland	27·7	8·9	50·6	14·0	6·3	3·3
VII. North-Midland	34·2	11·7	41·5	14·8	8·9	6·5
VIII. North-Western	16·2	7·7	66·3	5·8	1·1	7·9
IX. York	29·3	11·1	45·8	11·7	7·1	8·6
X. Northern	21·3	8·6	52·4	5·7	3·1	11·3
XI. Wales	21·3	5·6	58·6	5·0	5·9	9·3

The percentages are mapped on an ascending scale, commencing with the lightest colour to represent the lowest proportion.

MAP A.—*Corn-cropped Lands.*

The North-western division is the lightest corn-cropped, the percentage falling between 15 and 20. This is pre-eminently the manufacturing district of England; in mineral wealth it occupies the second rank, at the same time holding the highest place with regard to the proportion of its surface laid down as permanent pasture. In extent of trade the Mersey, which separates its two counties, rivals the Thames. These conditions necessarily reduce the cereal productiveness of the division. In 1861 the adult population, *i.e.*, "males and females aged 20 years and upwards," ascribed to the agricultural class, numbered 124,838, or 7·8 per cent. of the whole number of adults enumerated in this division.

The Northern counties and Wales rise one step higher, the percentage in those divisions standing over 20 but under 25. In the former group the adults of the agricultural class were 82,488, or 13·5 per cent., and of the latter 155,151, or 21·9 per cent. of the total.

A nearly continuous but irregular belt of land running from the north-east down to the south-west holds an intermediate position with regard to cereals; the ratio in Yorkshire, in the West-midland and South-western counties exceeding 25 per cent., but falling short of 30 per cent. In Yorkshire the adults of the agricultural class were 143,508, or 13·2 per cent.; in the West-midland division 186,661, or 14·2 per cent., and in the South-western 215,503, or 21·6 per cent.

The North-midland rises over the last-named divisions, the average corn-cropping is between 30 and 35 per cent. The adults employed in agriculture were 150,417, or 21·5 per cent.

The South-eastern counties form the next step in the ascent, corn-cropped land being from 35 to 40 per cent. of the whole area under culture. The adults of the agricultural class were 187,250, or 18·3 per cent.

The South-midland counties reach the penultimate grade, the corn-cropping there averages between 40 and 45 per cent. The adults ascribed to agriculture in 1861 were 169,850 or 24·4 per cent.

The summit is reached in the Eastern division, the average area corn-cropped in Essex, Suffolk and Norfolk ranging above 45 but under 50 per cent. In this division 164,577 adults, or 26·6 per cent., were classed as agricultural; or exactly 12 per cent. above the average of all England and Wales.

MAP B.—*Green-cropped Lands.*

The gradations are here less than in the previous map. Four divisions, mostly on the western seabord, come between 5 and 10 per cent. The intermediate rank, where the green crops range between 10 and 15 per cent., is occupied by a band, commencing with Yorkshire running due south, where it occupies the whole coast eastward and westward. The Eastern counties here also occupy the highest position; the ratios being, speaking roundly, in duplicate proportion to those at the opposite end of the scale.

MAP C.—*Permanent Pasture, Meadow, and Grass.*

This map displays as many gradations as the first.

The Eastern division, which holds the highest position both on the corn-cropped and the green-cropped scale, occupies the lowest here; though, it should be noted, the reckoning begins on a higher figure than either Map A or Map B started with. Permanent pasture averages, in the Eastern counties, between 20 and 25 per cent. The conterminous counties to the west and to the south of the last division rise from 30 to 35 per cent.; the next step is found immediately to the north (Division VII) and to the west (Division V) of the counties of second rank; the North-midland and South-western counties have from 40 to 45 per cent. in permanent pasture. York having 45 to 50, comes next; to the north of York lies Division X, and to the south-west, but not touching it, Division VI, each having a mean area of permanent pasture between 50 and 55 per cent. Wales ranks yet higher, the ratio in the principality is between 55 and 60 per cent. The maximum is attained in the North-western division, where the proportion is upwards of 65 per cent. Here we find the most extensive dairy-farming division of England; the ratio of cattle to every 100 cultivated acres is 25·6 or 10·5 per cent. above the mean proportion for the whole of England.

MAP D.—*Wheat-cropped Land.*

The Northern, the North-western, and the Welsh divisions hold the lowest place, coinciding in this incident with the same counties in Map B—"green cropped lands"—except that in the latter case the West-midland counties form a fourth division of initial rank. The ratio of wheat land in these three divisions, coloured yellow in the map, lies between 5 and 10 per cent. An intermediate section of England, also corresponding to a certain extent with one of similar proportional value in Map B, and here embracing Yorkshire, the North-midland, the West-midland, and the South-western counties, are wheat-cropped on the average above 10 but under 15 per cent. The South-midland and South-eastern counties range themselves on the scale as above 15 per cent. and under 20.

The Eastern counties stand highest, the percentage ranging between 20 and 25.

MAP E.—*Barley-cropped Lands.*

The Northern and the North-western divisions are the least favourable to this crop, for there the average falls below 5 per cent.

From the north-east to the south-west, and thence eastward all along the southern coast, the culture, though small, is pretty evenly spread; the proportion of barley-cropped land over this large tract, rises above 5 per cent. but falls below 10 per cent. In the South-midland counties it rises above 10 but does not reach 15 per cent.

The Eastern counties again stand at the top; there barley culture exceeds 15 per cent.

MAP F.—*Oat-cropped Land.*

Here the Eastern counties begin the scale, and on the same line are found the West-midland counties; the ratio in both divisions being less than 5 per cent. All the rest of the kingdom, with the exception of the Northern counties, forms a territory of intermediate oat-culture, ranging on the mean above 5 and coming under 10 per cent. The north is the favoured land of this cereal. There the ratio of cultivation exceeds 10 per cent., but is limited by 15 per cent.

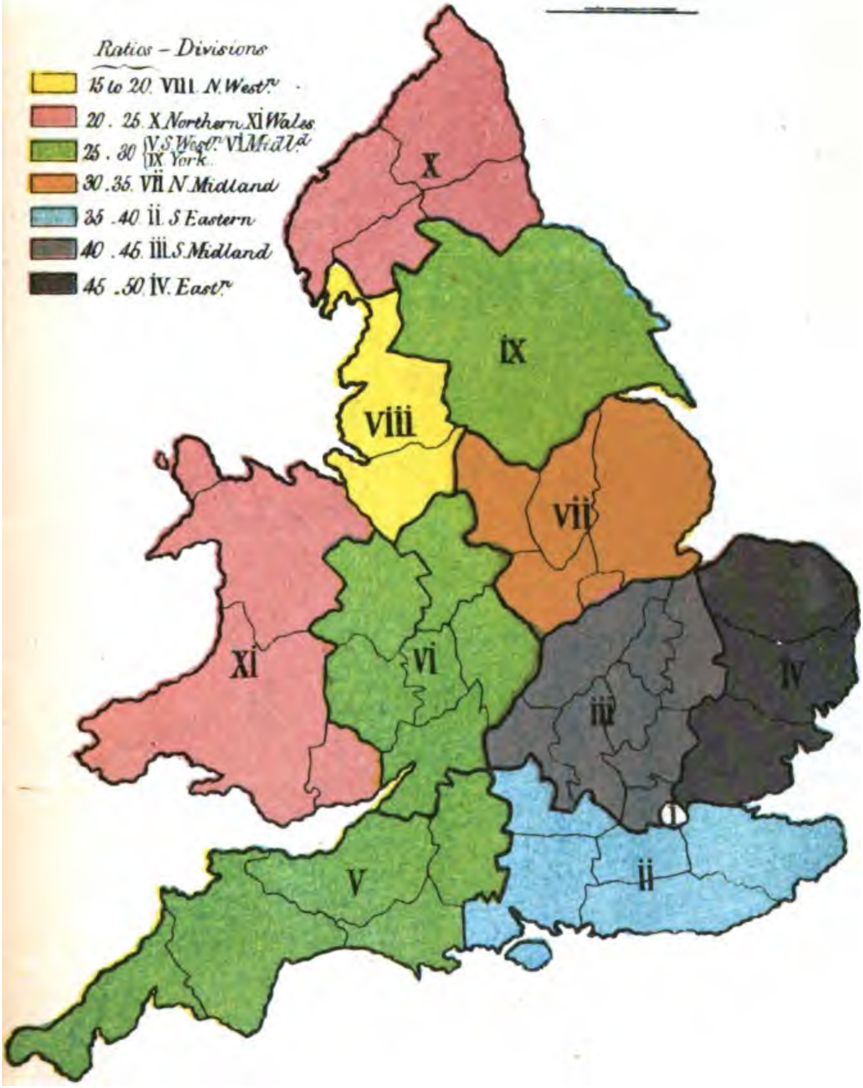
In noting the main features of the first map, some statistics of occupations as returned in the last census, have been added under each division. This has been done to illustrate the facility the topographical classification of returns affords for collating their data with facts furnished by the census. The lapse of time between the two series of particulars—the occupations of 1861 and the agricultural statistics of 1867—preclude any but an approximate method of comparison; a slight difference also in the areas of divisions formed of counties proper, and of registration (or union) counties tend in a trifling degree to discrepancy. For broad statistical results neither disturbing cause would be of very great moment.

During many years the classification here advocated has been familiar to the public—novelty cannot be pleaded in bar to its further employment. Hereafter, when it may be hoped that the agricultural statistics will be published in form completely deter-

MAP. A.

ENGLAND & WALES

PERCENTAGE OF
CORN CROPPED LANDS.



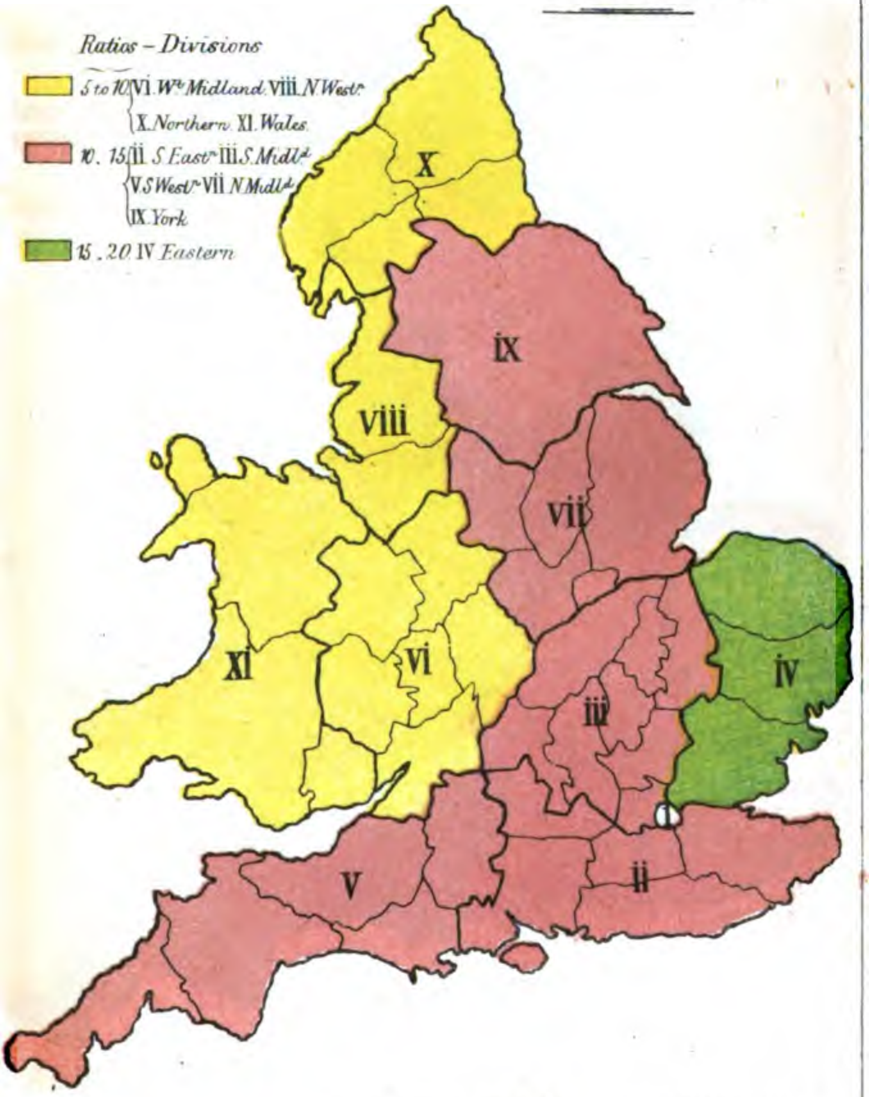
AGRICULTURAL STATISTICS
1867.

Harrison & Sons. Lith. St Martin's Lane W C

MAP. B.

ENGLAND & WALES

PERCENTAGE OF
GREEN CROPPED LANDS.


Ratios – Divisions
5 to 10 VI. Wn. Midland. VIII. N. Westn.
X. Northern. XI. Wales.
10. 15 II. S. Eastn. III. S. Midld.
V. S. Westn. VII. N. Midld.
IX. York
15. 20 IV. Eastern
X
IX
VIII
VII
XI
VI
III
IV
I
V
II

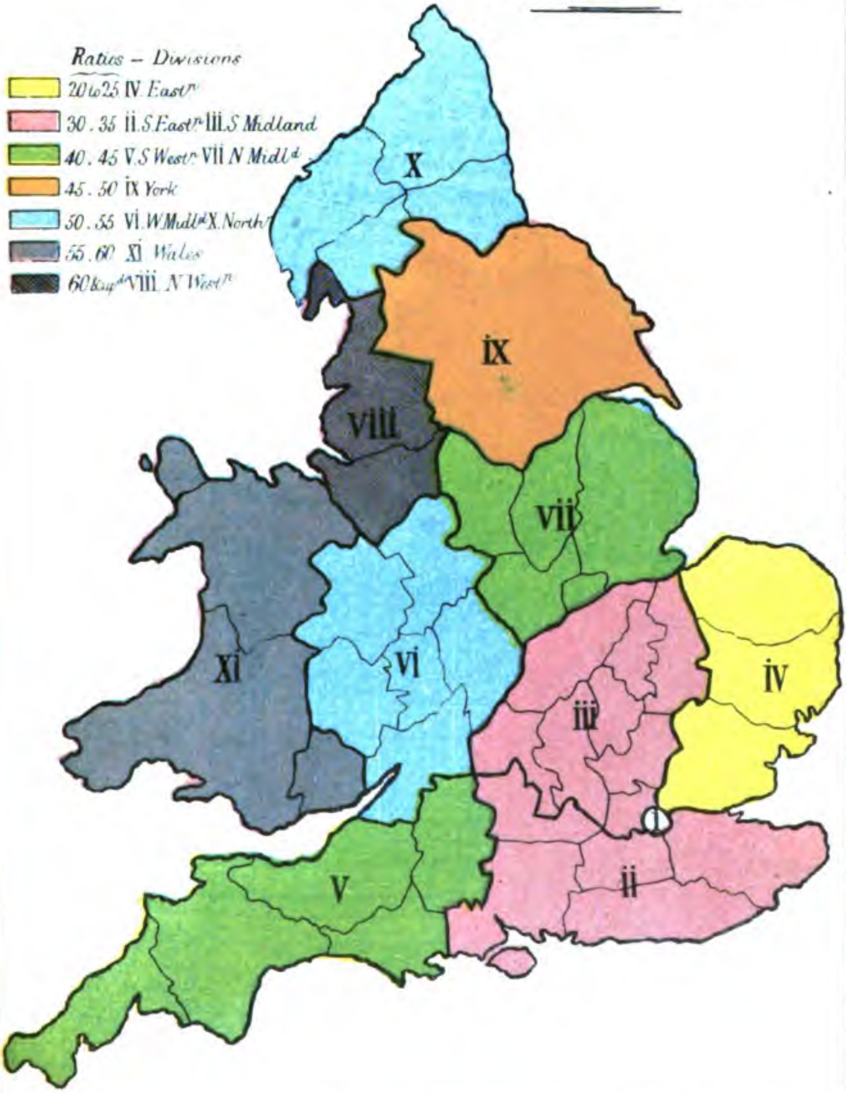
AGRICULTURAL STATISTICS
1867.

MAP. C.

ENGLAND & WALES

PERCENTAGE OF

PERMANENT PASTURE


Ratios – Divisions
🟨 20 to 25 IV. East^{n}
🟥 30 . 35 II. S East^{n} III. S Midland
🟩 40 . 45 V. S West^{n} VII N Midl^{d}
🟧 45 . 50 IX York
🟦 50 . 55 VI. W Midl^{d} X. North^{n}
▨ 55 . 60 XI Wales
■ 60 &up^{d} VIII. N West^{n}
X
IX
VIII
VII
XI
VI
IV
III
I
II
V

AGRICULTURAL STATISTICS

1867.

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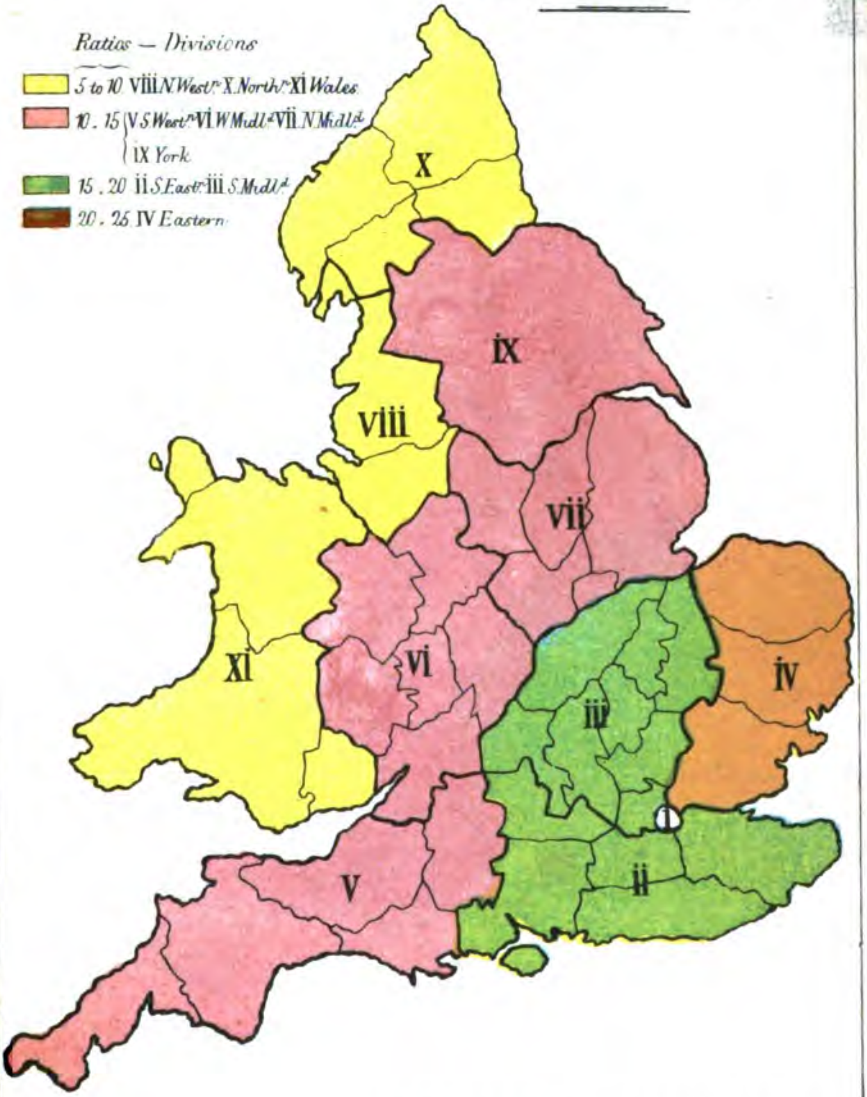
MAP. D.

ENGLAND & WALES

PERCENTAGE OF
WHEAT CROPPED LANDS.


Ratios — Divisions
5 to 10 VIII N. Westn. X Northn. XI Wales
10 . 15 V S. Westn. VI W. Midld. VII N. Midld. IX York
15 . 20 II S. Eastn. III S. Midld.
20 . 25 IV Eastern
X
IX
VIII
VII
XI
VI
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V

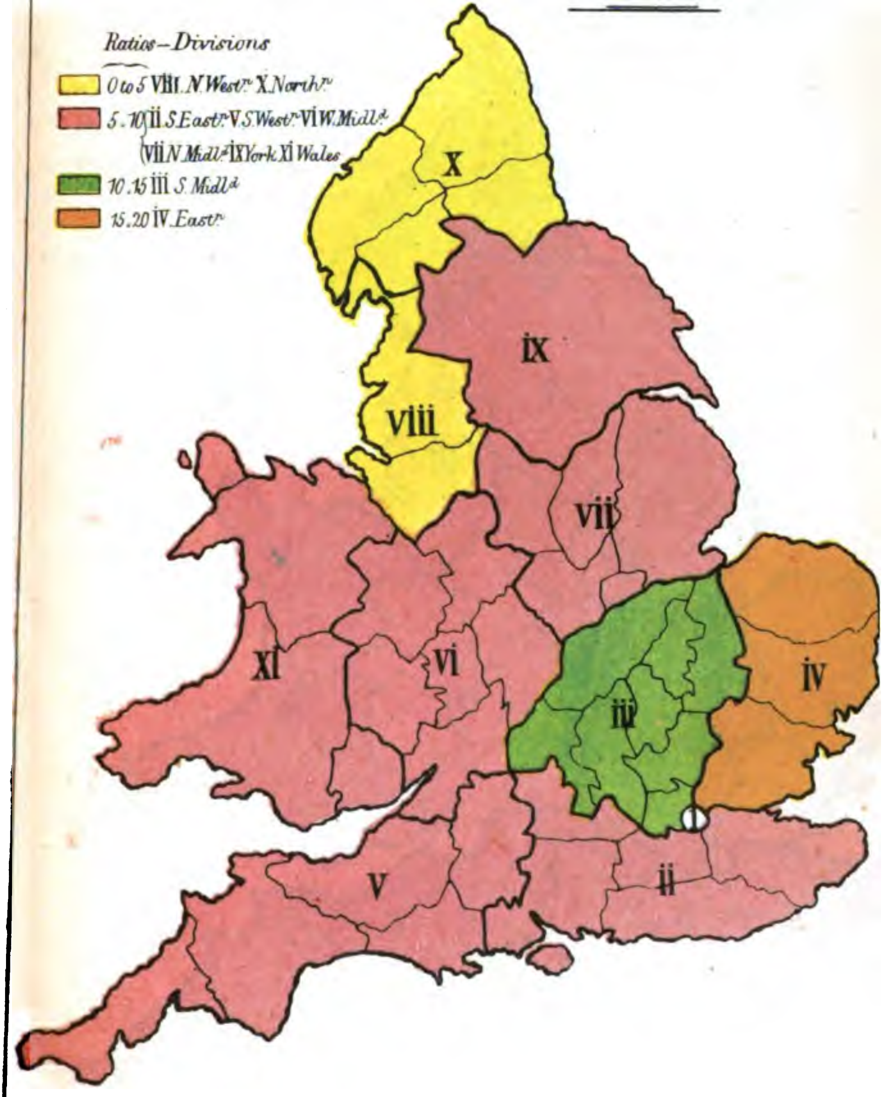
AGRICULTURAL STATISTICS
1867.

MAP. E

ENGLAND & WALES

PERCENTAGE OF

BARLEY CROPPED LANDS.


Ratios–Divisions
0 to 5 VIII. N. West^n X. North^n
5.10 II. S. East^n V. S. West^n VI. W. Midl^d
VII. N. Midl^d IX. York XI. Wales
10.15 III. S. Midl^d
15.20 IV. East^n
X
IX
VIII
VII
XI
VI
III
IV
I
V
II

AGRICULTURAL STATISTICS

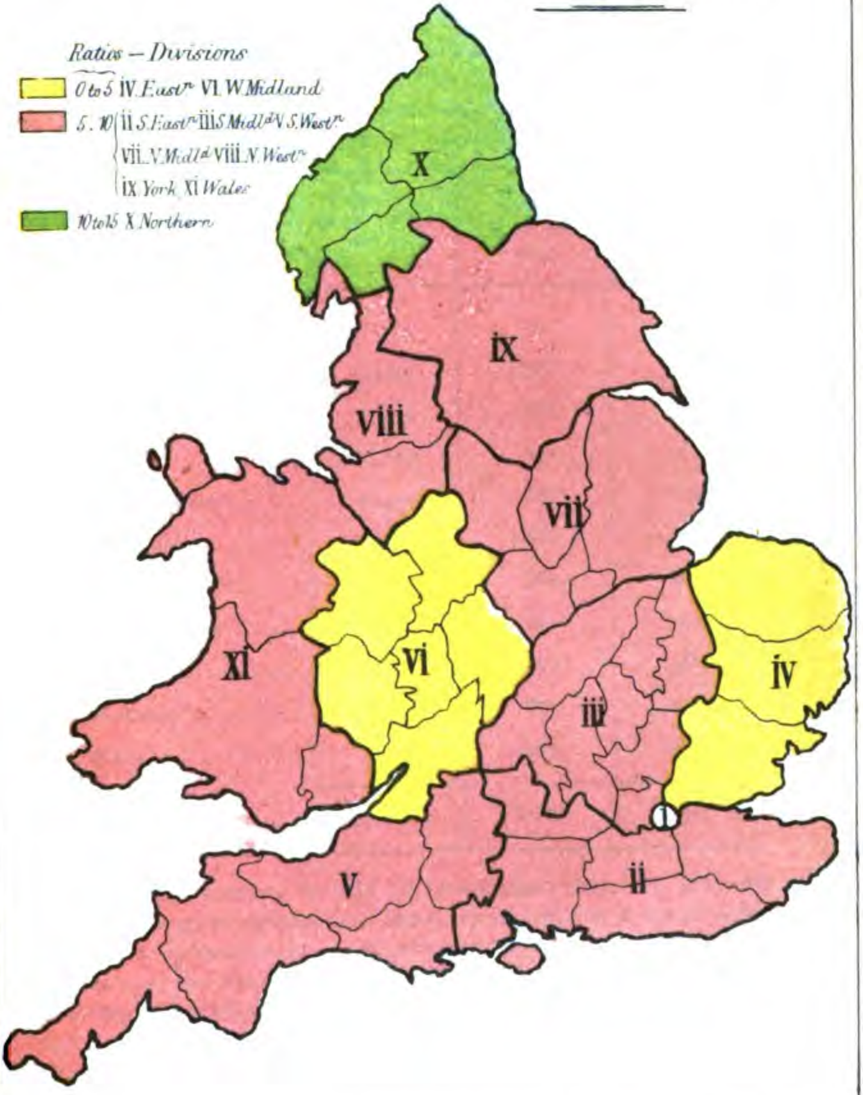
1867.

Harrison & Sons. Lith. S^t Martin's Lane. W.C.

MAP. F.

ENGLAND & WALES

PERCENTAGE OF
OAT CROPPED LANDS.


Ratios – Divisions
🟨 0 to 5 IV. Eastⁿ VI. W. Midland
🟥 5 . 10 ii S. Eastⁿ iii S. Midlᵈ V S. Westⁿ
vii. N. Midlᵈ viii. N. Westⁿ
ix. York XI Wales
🟩 10 to 15 X Northern
X
IX
VIII
VII
XI
VI
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II
V

AGRICULTURAL STATISTICS
1867.

mined by the master-classification of the census, it may interest the economist and the statistician to work out, among other cognate questions, the relation which subsists between the demand for labour in districts of large farms and in those of small farms, in corn-growing counties and in grazing counties.

By the returns of 1867, it is shown that the average size of each occupier's holding in all England and Wales was 65·1 statute acres. The smallest farms were found in the North-western division, 38·3 acres; the largest in the South-midland, 99·3 acres. Other data upon this point are divisionally tabulated hereunder:—

Divisions.	Occupiers of Land Owning Live Stock and Occupiers only.	Owners of Live Stock only.	Average in Acres of each Occupier's Holding.
I. The Metropolis	—	—	—
II. South-Eastern	29,530	1,157	88·5
III. South-Midland	27,395	913	99·3
IV. Eastern	27,155	498	95·3
V. South-Western	49,425	591	68·4
VI. West-Midland	54,912	1,311	55·4
VII. North-Midland	47,030	754	60·5
VIII. North-Western	32,274	583	38·3
IX. York	45,369	879	56·5
X. Northern	20,574	719	85·1
XI. Wales	56,996	624	47·8
England and Wales	390,660	8,029	65·1

We may venture to add in conclusion that, for scientific purposes, a mere alphabetical summary of counties is an arrangement, not a classification—the arrangement destroys natural relationships, the classification, if it deserve the name, restores them. The beginning of science is classification; and statistical method, to be of any worth, must not deviate from the well-established and fruitful path of inductive research.—[Ed. *S.J.*]

MISCELLANEA.

CONTENTS:

PAGE

I.—Taxation and Wages in America 228

II.—The Progress of Sanitary Reform 230

III.—Agriculture in France 234

IV.—A Trades' Union 236

I.—*Taxation and Wages in America.*

THE first extract recently appeared as a leading article in the *Times*, and the second as an "occasional note" in the *Pall Mall Gazette.*

From the *Times:*—

"The Americans at the conclusion of their great war displayed an 'ignorant impatience,' not, like ourselves, of taxation, but of indebtedness, which was natural to a people so happily unacquainted with public burdens. They proposed at first to clear off the whole debt by a voluntary subscription, and they began at once to tax themselves to an incredible extent in liquidation not only of interest, but of principal. It is only now they are recognising the necessity of patience, and the inevitable difficulties of national finance under the new conditions. Seven years ago the whole public debt of the United States was under 14,000,000*l.*; it is now, measured by annual charge, exactly as large as our own. Seven years ago the ordinary expenditure of the Federal Government was about 13,000,000*l.*; it now approaches our own standard—so rapidly have charges of all kinds accumulated since the civil war. On the whole, therefore, the revenue required in America is now almost as considerable as that required here, and we may venture with little hesitation to say that it is far less judiciously raised. The people have been singularly submissive under taxation, but trade is now bad, incomes are falling off, and the distress in the large cities has been very great. Some of these results were probably inevitable, but it is not to be doubted that the Americans would have been wiser had they disregarded for the moment the amount of their debt, and confined their attention to the easiest means of providing for present expenditure.

"Our American correspondence recently informed us that the proceeds of the income tax in the United States, as just ascertained, has fallen off by no less an amount than 30 per cent. from the returns of the previous year, and the fact must necessarily indicate a great decline in the public prosperity. The tax in America is 5 per cent., or a shilling in the pound, on all incomes above 200*l.* We are not told the total sum realised by this impost, but some of the incomes still returned by the principal citizens of New York, for the year 1867, would probably bear a comparison with any figures in our own statistics. Mr. W. B. Astor is taxed for municipal purposes on a property valued at 3,000,000*l.* and upwards: he returned his income last year at about 200,000*l.*, and he actually paid altogether during the year 1867 a sum exceeding 80,000*l.* in direct taxes alone. It is clear that the rich pay for their riches in America, but it is also clear that the accumulation of property, and even of real property, is as great in that country as in this. Perhaps those people who were impressed by Mr. Bright's account of the handful of proprietors who owned half Scotland will be even more surprised to hear that *eleven* persons actually owned one-tenth of all the real estate in New York—a very different kind of property from the moors and forests of the Highlands. One of these opulent citizens was taxed upon property assessed at 1,500,000*l.*, and three others were rated on a capital of nearly 1,000,000*l.* each. Some of the trading incomes, however much they may have been reduced, are still magnificent in amount. Mr. J. G. Bennett, of the *New York Herald*, returns between 30,000*l.* and 35,000*l.* for the profits of the year; Mr. Bonner, of the *New York Ledger*, little short of 50,000*l.* Mr. R. M. Hoe, the manufacturer of the printing-presses which bear his name, cleared over 20,000*l.* in 1867, and Mr. Delmonico, the hotel-keeper, about 14,000*l.*, while the Rev. Henry Ward Beecher returns an income of nearly 8,000*l.*, or about twice that of an English Bishop. From Cincinnati the largest return for the last year is but 24,000*l.*, from Chicago 40,000*l.* This was cleared by Mr. M'Cormick, the maker of the reaping machines; but a manufacturer of 'sleeping cars' for railways reported his profits at nearly 15,000*l.* The *Chicago Tribune*, too, must be a flourishing country paper, for it returns 5,500*l.* to one of its proprietors, and 5,200*l.* to another.

" These curiosities, however, of private income are lost in the general evidence of public impoverishment. A decline of nearly one-third in the profits of trade throughout the country is a very serious fact, and one which may well induce the Americans to reconsider their principles of finance. Some of this decline is probably incidental to the transition from war to peace, but all through the Union there is a cry against the pressure of taxation, though as yet there is no general or effective demand for economy or retrenchment. The Americans have not emancipated trade, nor placed their reliance upon enterprise and industry; they have preferred to resort to the embarrassments of protection, with the vain hope of balancing the claims of classes and excluding the foreigner from the national market. They are now discovering the natural results of the system. No class of producers is satisfied, while the aggregate of consumers is left to suffer. Every protected interest clamours for more protection, and the nation at large struggles against high prices, bad trade, and heavy burdens. The other day it was affirmed in the House of Representatives, and not contradicted, that whereas a ship of 1,000 tons could be launched at Liverpool for 10,000*l.*, it would take fully 20,000*l.* to build such a vessel at New York. 'The tariff,' added the speaker, 'was the reason. The decay of American shipping was caused by the tariff.'

" We look upon this policy with some surprise, because it appears to us that our own experience ought to be available for the benefit of others. We have gone through these difficulties, or, rather, we have learned how to support them. Leave industry and enterprise free and the national income will grow of itself. Of course, all States must have their ups and downs, and some periods will be less prosperous than others, but the true principles of national finance remain unaffected by such vicissitudes. There is no reason why the Americans should suffer from the pressure of their debt. It is no such trifle as they fancied it three years ago, but it is certainly not beyond the capacities of such a nation to sustain, and these capacities, it must be remembered, should improve every year. The Americans have prospects before them exclusively their own. The nation which has to provide 26,000,000*l.* a-year for the interest on its debt is now a nation of some 30 millions; it may hereafter be a nation of 100 millions. To the growth of its public wealth it is hardly possible to put any limit—the only condition is that it should be allowed to grow.

" We have never witnessed in this country since the establishment of the income tax, twenty-five years ago, such a phenomenon as a decline of one-third in its yield. We may almost say that up to this moment we have hardly seen any decline at all, but a steady, continuous, and unbroken rise. The penny in the pound, which used to produce 1,000,000*l.*, came by degrees to produce 1,400,000*l.* Last year, for the first time, the yield was reported, in consequence of the financial panic, to be somewhat falling off, but the facts are not yet clear, and Mr. Hunt in his latest statement spoke with greater confidence than at first. Yet we have certainly had our share of troubles, and the cotton famine in particular, was a trial of extreme hardship. Hitherto, however, one thing has always compensated for another, so as to leave the national prosperity as clear and the national revenue as buoyant as ever. That fortunate result we ascribe to free trade and unfettered industry. If we lose at one point, we gain at another. If one door shuts, another opens. We are almost compelled to anticipate that the losses of 1866, coupled with

the destruction of confidence which has followed them, may leave some mark on the revenue returns, but we rely upon our system of finance to preserve us from any depression so great as that now recorded in America."

From the *Pall Mall Gazette:*—

" A report by Mr. David A. Wells, special commissioner of the revenue, gives an analysis of the extraordinary change in the cost of labour in America during the last eight years. A careful examination of the books of a rolling mill in Pittsburgh, Pennsylvania, making band iron, shows that 5,200 dollars a-week was paid in 1866, against 1,700 dollars in 1860 and 1861 for precisely the same amount of labour. The average wages of melters, forgers, and rollers in the mills, working nine hours a-day, was reported to the commissioner to have been, in 1866, 8 dollars a-day. Skilled hammermen, working five days a-week, earned 8 dollars a-day; head nailers, superintending four machines, 11 dollars a-day; and blowers of bottles and makers of window glass, 275 dollars a-month. During the month of May, 1866, the average wages paid in the Pittsburgh glass works were 11 dollars 40 cents a-head per day. Bricklayers and masons earned from 4 dollars to 7 dollars a-day. An examination of the United States statistics of manufactures shows a clear increase in wages in 1866 of upwards of 60 per cent. as compared with the wages paid in 1860. Assuming these to be the rates still current, and that 40 per cent. of the increase is to be accounted for by the depreciation in the paper currency in which wages are paid, there is yet a remarkable margin of advance which must have a disadvantageous effect on all manufacturing operations in the United States; unless, indeed, a corresponding advance has taken place in most other countries, in which case the movement would simply indicate the diminution of the purchasing power of gold, owing to the steady continuance of the gold supply from Australia, California, and elsewhere."

II.—*The Progress of Sanitary Reform.*

THE following article appeared in the *Saturday Review* under the title of "The Privy Council and the Public Health:"—

" Thirty years have passed since the Poor Law Board, at the instance of Mr. Chadwick, who was then their secretary, obtained from the late Dr. Southwood Smith that famous report, which is the foundation of sanitary work and legislation in England, 'on some of the physical causes of sickness and mortality to which the poor are particularly exposed, and which are capable of removal by sanitary regulations.' In that period the young science of hygiene has passed through some curious and instructive phases of life. And though it may now be trusted to make its way in the world by its own power and merits, it is well to take account of its past doings, and to consider how we may profit to the greatest degree by its development and maturity.

" In its early days, sanitary science was not a little crippled by the enthusiastic admiration of its nurses. In the evidence that was taken before various commissions, statements about the power of drainage and ventilation to rid the world of almost all its physical and most of its moral evil occur with a frequency and positiveness that amaze the sober inquirer into facts. Not only were all epidemics in a batch to be rendered harmless, but consumption, skin diseases, and deafness, with other maladies, were to be sent, along with poverty and prostitution, down pipe drains, or were to be blown away by blasts of wind. Not content with quietly enlarging the limits of knowledge, but looking from the known out into the unknown with a glass of extra-generalising power, our earlier sanitarians were themselves largely responsible for the scepticism with which practical minds received even the soundest part of their teaching. And yet it could hardly be

otherwise than that reaction from the old apathetic fatalism should take the form of exaggeration of the preventive powers of active interference.

" In those days, while people still hesitated about giving their faith to the heralds of sanitary marvels, the cholera outbreak of 1848 came to strengthen the hands of those who advocated the instant application of all known and imaginable hygienic laws. In that year the first Public Health Act and the Epidemic Diseases Prevention Act were passed. The one was provided for resisting exceptional and imported disease; the other for the permanent defence of the population against every day maladies. The General Board of Health, created to administer these acts, had at once to put forth against cholera all their resources of argument and authority. They insisted on the actual necessity of removing the foul matters on which cholera grows, and declaimed against the view—which had narrowly escaped being acted on in the previous epidemic—that quarantine of countries, towns, and persons was the means to be relied on against extension of the disease. Their principles, and the work founded thereon, were of signal and unmixed service against cholera. They were also, as the result has shown, potent against other diseases which obey laws like those of cholera. But, with a positiveness which is as strange twenty years after as it would have been twenty years before, the General Board of Health proceeded to extend the experience of cholera deductively to all manner of contagious diseases. That epidemic disorders are essentially different in their nature, one from the other; that for each there can be a specific contagion; and that they may spread exclusively or chiefly by contagion—these were treated as notions of a past time, and dismissed in favour of a general premiss that ascribed all epidemics alike to some widely diffused atmospheric influence, localised and determined in character by particular sanitary defects. And this absolute doctrine, with others not more grounded in fact, was applied throughout the ordinary dealings of the board with local authorities. To it, however, common observation, not that of doctors only, speedily began to demur, and the truth that was contained in it rapidly became discredited. No doubt the new and extensive powers of local interference conferred on the central board, were an object of jealousy and dislike, and even some of the wisest of the cholera regulations were contemptuously disobeyed. But this was the greater reason for caution in announcing principles, and for avoiding the introduction into administration of views that had not passed the stage of hypothesis. The construction of the board, again, was adverse to the acquisition of fresh knowledge. It consisted of two benevolent noblemen and a lawyer, for whom existing data necessarily stood in the position of first principles not to be brought into question. Its inspectors under the Public Health Act were engineers duly indoctrinated with the same axioms. A medical member was indeed soon added to the board, but not until the function of providing for the dead was added to its other duties, and in this singular way the sanitary arrangements for the living did come somehow within the compass of current medical science. Yet, even with this addition, the action of the board was steadily guided by the assumption that all needful sanitary knowledge was conclusively attained, and that all administrative action followed from this as a matter of course. We can now see that, just in so far as the medical principles assumed had their basis in truth, the large and vigorous action of the general board was beneficial to the districts to which it was applied. The advantage to the public health gained by this action has recently been measured, and its nature ascertained. It is by no means of doubtful amount; and the experiments thus tried have furnished the materials for an exact knowledge which has yet to bear a further crop of practical results. But, at the time, people who had given credence to the extravagant promises held out to them anticipated that their works of drainage and water supply would at once be followed by obvious effects, and first by the extinction of all epidemics. Instead of this, they found but little change of a kind to be readily appreciated. Here and there an engineering mistake had actually caused outbreaks of typhoid. More commonly a perverse outbreak of scarlet fever or small pox would ravage a town as soon as its works were completed, and would even raise the gross mortality above its former amount. And while the failure of the board's predictions was quickly seen, length of time was wanted for their real advantages to be discovered. With the disappointment of ill-founded hopes, too, there arose dissatisfaction at expenditure. The influence of the sanitary works, if obscure in other respects, was very perceptible upon the local rates. And an error of judgment of the board had given a handle to cavillers. In order to save the expense of several independent surveys of the same place, the superintending inspectors had been allowed to undertake, as private engineers, the execution of the works which they had officially advised. From these causes the general Board of Health came to lose public confidence, and after some experimental changes of its constitution and three or four grudging renewals, Parliament, in 1858, declined to continue its powers. The Public Health Act of that year transferred to the Privy Council the administration of the Diseases Prevention Act, and left permanent sanitary measures to local authorities, without any central authority to control or compel them, and with only a slight general supervision entrusted to the Home Secretary.

"That the central Government should have renounced the power which the General Board of Health had virtually possessed, of compelling local improvement, appears at first sight to be an immense loss to the cause of sanitary progress. In the absence of cholera, the functions of the Government were restricted to inquiry into matters relating to the public health, and, as a referee on such matters, they were provided with a medical officer. But, except when the Diseases Prevention Act was in force, the duties of that officer were of the most indefinite kind. It is true that the council now had the regulation of public vaccination assigned to them, and their medical officer stood in the place of the presidents of the colleges of physicians and surgeons, who, with other distinguished authorities, had been supposed necessary to advise the Government on the subject. On a perfunctory interpretation of the Act of 1858, therefore, the council and its medical adviser might have confined their ordinary work to any local inquiries that were forced upon them, and to the issuing of rules for efficient vaccination. Such were the limited and occasional duties that seemed to have replaced the large and systematic powers previously exercised by the Board of Health.

"But, in the ten years that have elapsed since the extinction of this board, not only have sanitary works in their ordinary sense multiplied largely in the kingdom, while local authorities have been still in a measure supervised, but the subject of hygiene has gained substantially in public esteem, the functions of Government in regard to health have been more and more recognised, and a store of sanitary facts of the highest scientific importance and practical utility has been amassed. As regards visible results, many important pieces of legislation have been demanded and obtained, and a new department of administration has been erected which, under the force of growing opinion, is each year developing towards a true Ministry of Public Health.

"The small beginning from which these large results have sprung, is to be found in those words of the Act of 1858, which authorise the council to cause inquiry to be made in relation to matters concerning the public health. It is characteristic of our legislation to have provided in no more direct way than this for a central influence over local bodies, and it is equally characteristic of our better statesmanship to have evolved from such a provision a power of opinion that has not only accepted, but called for, extended and compulsory health-legislation. Under Mr. Lowe's vice-presidency, a medical department of the Privy Council was formed in 1861, and the effective work of the office dates from that time. Accepting unreservedly the position of inquirers, it has come about that the council, through their medical officer, have been in a very important manner teachers also. The whole field of medical science has been regarded as capable of furnishing knowledge that might be applied to the prevention of disease, and inquiry has been pursued in chemical and pathological, as well as in statistical and social, directions. Thus the reports of the department are not only looked to by legislators for their immediate practical purposes, but are esteemed among the most exact and valuable contributions made of recent years to scientific medicine.

"The regulation of public vaccination is a striking illustration of the way in which the sanitary functions of the council were exercised. In spite of the high authorities that had formed the National Vaccine Board, and the existence for years of compulsory vaccination acts, the extensive prevalence of small pox, and especially its unequal distribution in different localities, afforded ground for the presumption that vaccination was correspondingly neglected or ill-performed. It was not enough to issue general mandates against this neglect. The council set on foot an extensive inspection of district vaccination, and continued it from year to year. Large defects in the administration of the vaccination laws, and in the methods of practising vaccination, were discovered, of a nature that accounted in great measure for the continued reign of that terrible disease, small pox. The experience gained in these inspections was put at the service of the authorities in the more backward districts, and more or less improvement of practice was made. And when public opinion was sufficiently informed, a bill for the amendment of the vaccination acts was brought in by the vice-president and carried.

" Inquiries concerning the state of the public health in particular places were called for by the existence of epidemics or by local complaints. It appears by the reports of the department that such investigations have been instituted in some hundreds of instances, and in nearly a hundred cases the inquiry has been made by an inspector sent by the office. Facts not of local importance only, but of general value, alike in medical and in administrative aspects, have thus come to light, and their publication has brought about a large amount of sanitary improvement. This is evidently the class of inquiries primarily contemplated by the Public Health Act.

" If the action of the council had been restricted to duties of this nature, however much they might have satisfied the letter of the law, a small fraction only of the work which has been accomplished would have been done. But they wisely took, on the representations of their medical adviser, a wider view of their functions, not waiting for local complaint or shortcomings, but investigating generally the prevalent causes of disease. Already in 1859 two enemies, an old one and a new, were systematically reconnoitred, and the positions to be taken up against them were defined. Epidemic diarrhœa was shown to prevail in the country, and to be distributed according to local conditions in such a way that if its death-rate in the whole of England could be reduced—not to the rate of the healthiest, but even to ten times the rate of the healthiest districts—twenty thousand lives would each year be saved that now were being sacrificed to it. To the causes of this disease the first general inquiry was addressed, and a definite result, showing convincingly the power of preventive means upon it, was obtained. About the same time the stranger foe, diphtheria, so sudden in its attacks, so fatal in its results, came up for investigation. To track its course, to note its laws, and to learn what means of prevention availed against it, was to strengthen the hands of the medical profession in dealing with an unfamiliar disease, and to allay the alarm that is ever felt on an unforeseen and strange visitation. The next piece of work which the council undertook was an inquiry into the special causes which develop pulmonary disease in various manufacturing districts. Another was into the circumstances that determine excessive mortality among young children in the same districts. The report on infantile mortality, gives a very sad picture of suffering and demoralisation caused by the conditions of female employment in factories, and it suggested some practical methods of mitigating the evil influence of these conditions upon infantile life. The cotton famine also claimed the attention of this department. With the urgent necessity for economy pressing relief committees and boards of guardians on the one side, and famine-fever threatening the distressed districts on the other side, it was of the utmost consequence that trustworthy information should be obtained, and judicious advice given with some show of authority, as to the means by which health could be sustained under very exceptional conditions of living. Ground was soon broken in another part of the sanitary field. Allegations had been made that the flesh and milk of diseased animals were extensively sold, and were productive of injurious effects on man. An elaborate report upon this subject defined the cattle diseases that were proved to be thus injurious to man, and was of much service in refuting some vague generalisations that were beginning to find acceptance.

" What a single year's work speedily became to a department that conducted its labours on these broad principles might be shown by an enumeration of the investigations reported on in 1863. There was, first, the systematic supervision of public vaccination, with the inspection of 1,143 districts; and of the public vaccine supply which furnished lymph in answer to 15,383 applications. There was, next, an inquiry into the sanitary conditions of 112 places, at 14 of them by office inspectors. But besides this routine work, systematic investigations were carried on into a variety of circumstances that determine the distribution of disease in England;—1. Into the conditions of nourishment among the poorer labouring classes. 2. Into hurtful and hurtfully-conducted occupations, involving working with various metallic poisons, shop and factory employment as productive of lung disease, and systematic overwork by large classes of the population. 3. Concerning residence in marsh districts, an inquiry which brought out some singular evidence as to the waste of infantile life. 4. Into hospital hygiene—a subject upon which exact information was urgently called for, and which was rescued, by this report, from a mass of erroneous and exaggerated statement. 5. On dangers arising to the public health in the conditions under which drugs and poisons are retailed. This is no small development of work comprised in a year's proceedings, under a general power of 'inquiry;' the duties explicitly assigned to the office being by far the smallest part of its business. And much of this voluntary work, as it may be called, of the year has already borne fruits of practical usefulness. It was on the evidence thus submitted that Parliament made, in 1866, provision for keeping factories and workshops as free as practicable from injurious vapours and dust, and for preventing overcrowding in them; a provision which may be regarded as the *habeas corpus* of the artisan. At the same time the more intelligent administrators of our medical charities are already acknowledging the value of the conclusions arrived at on the health of hospitals.

"A simple enumeration may suffice of some of the chief investigations since undertaken by the department. Detailed examination has been made of the house accommodation of the labouring classes, and of the working of the Nuisances Removal Acts. Foreign epidemics, plague, and cerebro-spinal meningitis, which were alleged to be obtaining a footing in neighbouring countries, and cholera and yellow fever, which had actually made lodgments on our own shores, have been studied by competent inspectors; and the whole bearing of the question of quarantine on this class of diseases has been re-investigated. In the presence of cholera, the powers of the council under the Diseases Prevention Act arose for the first time in 1866, not until the ninth year of their existence as administrators of that law.

"That the future growth of sanitary knowledge should be commensurate with its past progress as here summarised is a matter in which the community, and more particularly 'our future masters,' are deeply concerned. At this moment proposed legislative changes are effecting, in an indirect manner, the constitution of the health department, and it is of urgent consequence that they should be so contrived as to facilitate and extend its most useful work."

III.—*Agriculture in France.*

The following notice of the earlier portions of the evidence recently collected by the French Government upon the condition of agricultural industry throughout the empire, appeared in the *Pall Mall Gazette*. Several folio reports of inquiry have been already published; it is understood that the whole of the information will occupy upwards of thirty volumes:—

"A couple of years ago there went up such a cry from the French agriculturists that the Government felt it incumbent to appoint commissions of inquiry.

The country was divided into thirty zones, and each zone was subjected to the examination of a different commission. The inquiry has terminated, and an immense mass of evidence has been sent to the Minister of Agriculture. Several volumes have already been published, and the information furnished by these printed reports is quite sufficient to show the causes of suffering: these are want of labour, want of capital, want of communication, want of instruction, and the taxes levied on the transfer of property. To this list may be added the subdivision of land, but most of the commissions, though they point out evils attendant on this system, consider it favourable to production. The second question put by the Minister of Agriculture runs thus:—During the last thirty years, what influence has been exercised on the conditions of production by the division of property? The commission for the department of the Manche says the result has been to augment production, but in reply to other questions the same commission points out that the small proprietors have not sufficient capital to improve their farms; that the excessive division of property is an obstacle to the employment of machinery, and again that the principal objection to the division of property is that it renders drainage impossible. The Calvados commission also replies to question 2 that the division of property has augmented production, but deplores the want of capital. In Eure subdivision has been found prejudicial to production, and the commission condemns the practice of dividing the land amongst the heirs on the death of the head of the family. M. Genteur, president of the eleventh zone, gives much valuable information in his report. He says that since 1789 the division of land has constantly progressed, and that, confined within reasonable limits, this system presents two advantages—1st. It is useful as regards the development of production; 2nd. In encouraging the labouring classes to buy property it 'moralises' them, interests them in the maintenance of social order, inspires them with conservative sentiments, and keeps them from the temptations and seductions of the town. On the contrary, when exaggerated it gives rise to serious inconvenience, and the legislature should prevent it being carried to excess. According to the Code Napoléon, the father, when dividing his goods amongst his children, is obliged to give each an equal share of all the objects composing his fortune. The opinion of the agricultural world is that this law produces an excessive division of landed property, and that it would be better for the father to share his goods amongst his children according to their tastes and professions. Another commission reports that 'the extreme division of property is one of the principal causes which prevents the use of agricultural machines.' And again, when alluding to drainage, 'the parcelling out of the land prevents the farmers carrying away the water.' The commissioners admit that the system of division should end somewhere, but it would be a terrible blow to the ideas of 1789 to re-establish the laws of primogeniture even as regards land, and no one would be bold enough to propose such a measure. M. Genteur does go so far as to recommend that the head of the family should be allowed to give his land to one child and his funded property to another, but any bill introduced into the Corps Législatif tending to such a consummation would be vigorously opposed.

"Another cause of agricultural suffering is the want of labour felt all through the country; this is attributed to the army, the development given to various industrial undertakings, and the immense public works being carried on in Paris and other large towns. Everywhere statistics show that the rural population is on the decrease, and that the deaths exceed the births; the peasant prefers the town because the labour is generally lighter, more continuous, and better paid; in fact one can easily imagine the attraction for a Breton, who gets at most half a franc a-day, of ten times that amount to be earned in Paris under Prefect Haussmann. That deaths should nearly everywhere in the country exceed births does not alone depend upon emigration. If we turn to another report, we find that immorality has much to do with the matter, and that there is a general hankering after luxury:—

"'The good old manners are disappearing day by day, and rustic simplicity is no longer in vogue; luxury and the love of pleasure have invaded the most remote parishes. The number of natural children increases, the number of legitimate ones diminishes. The peasant of to-day is determined not to have children. To counteract this tendency it is demanded that the Government should encourage large families by relieving them from taxation. I am obliged to state that religion is on the wane. The priests are worthy of all respect, but they have lost their influence, and to believe the testimony of many persons, this state of things has been produced in consequence of the clergy preaching dogma rather than morality, and not adhering to those principles upon which modern society reposes.'

"Want of capital is another malady which afflicts agriculture. The fever of speculation has spread through the whole country, and the money which used to be laid out in the improvement of land is now invested in railway shares and loans, or squandered on the Bourse. On the other hand, the farmer who desires to get money can only do so by paying an exorbitant interest, for very few proprietors can fulfil the conditions upon which alone the Crédit Foncier and Crédit Agricole will make advances. The country people also complain of the large amount of stamp duty which they have to pay, and where there are so many forced sales, and where so many persons are left land which they cannot keep, this species of taxation is especially onerous.

"What most of the commissioners demand is that the conscripts not belonging to the active army shall only be called out for drill when there is no agricultural work to do; that there shall be fewer fairs and market days, where much time is wasted; that the stamp duties shall be lowered; that the farmer shall be afforded facilities for getting money; that agricultural instruction shall be given; that some means shall be adopted to prevent the constant emigration to large towns; and some modification introduced into the present law affecting the right of disposing of property by will."

IV.—*A Trades' Union.*

The following article appeared in the *Times*. The annual reports of this union will be found in the Statistical Society's library:—

"The Amalgamated Society of Carpenters and Joiners has enjoyed for some time an exceptional reputation among trade unions for good management, prosperity, and strength; and this character, we are bound to say, is apparently maintained in the statements of its last report, which is now before us. The volume itself is evidence at first sight to the respectability of the association. It is as large and as weighty as the reports of our great religious societies, and its frontispiece is a map showing the situation of its 'branches' in various parts of the United Kingdom. These branches are upwards of two hundred in number, comprising between them fully 8,000 members, and the accumulated funds of the union actually in hand exceed 15,000*l.* Yet the society is only in the ninth year of its existence, having risen to its present dimensions since the year 1860, at which time its members were only 600, and its available balance but 320*l.* It deserves, however, to be noted, that last year, for the first time since its foundation, its progress was materially interrupted. There was no actual decline, but, on the contrary, a certain increase both in its numbers and its property; but this increase was considerably less than in former years. In other respects, too, 1867 was a remarkable year for the union, as will presently be seen.

"To find out what a society is doing we look to its accounts, and the accounts of the Amalgamated Carpenters and Joiners are full, clear, and intelligible. Last year the entire income of the society, derived almost exclusively from payments by its members, was no less than 18,245*l.*, and, as its expenditure during the same period was 16,144*l.*, it is easy to see that even an unprosperous season added upwards of 2,000*l.* to its capital. The critical question, however, concerns the distribution of these outgoings, though here, too, the society comes out creditably from the inquiry. A good 10,000*l.* of its expenditure was upon 'benefits' of various descriptions. These are classed in the accounts under six several heads. Members out of work 'through slackness of trade only,' receive support in the form of 'donations;' sick members get their 'benefit' according to scale; 'burnt *or stolen* tools' are replaced by a third benefit; 'funerals' are defrayed from a fourth, and accidents and superannuations (the latter a very small item), make up the list. To these purposes altogether very nearly two-thirds of the society's expenditure was actually applied. Mr. R. Applegarth, the general secretary, whose signature authenticates the report just published, claims credit for the amount of good thus effected, observing that the disbursements of the union in 'donations' alone, 'provided the means of living for a population of upwards of 3,800 persons,' for a period of ten weeks. But his argument on this point is superfluous. Nobody contests the value or utility of trade unions as benefit societies. In this respect the amount of good they accomplish is beyond all question, and needs no proof. There is, however, as Mr. Applegarth is well aware, another capacity in which these unions present themselves before the public.

"We have only accounted for 10,000*l.* out of the 16,000*l.* spent by the Carpenters' and Joiners' Society last year, and it will be asked where the rest of the money went. It was not expended on this occasion to any ruinous extent on 'trade privileges,' or, in other words, strikes. The outlay on this head in 1867 was about 1,800*l.*, or only 10 per cent. of the gross income. But, as we have already said, the year was an exceptional one. The depression of trade was very great, and it explains not only the retarded progress of the society, but the peculiar application of its funds; work was so slack, and so many members came upon the union for help, that there was less money than usual for 'trade purposes' and less disposition to spend it. Thus, as much as 10,000*l.* went upon benefits, and only 1,800*l.* on trade quarrels; but it has not been always so. In the year 1866 the outlay on benefits was only 4,726*l.*, while that on 'trade privileges' was 2,525*l.* In 1865 the comparison is still more striking; in fact, the figures are nearly balanced, for, whereas benevolent purposes took only 2,200*l.*, trade purposes carried off all but 2,000*l.* Again, in the summary of these outgoings for the whole eight years of the society's existence, we find that the aggregate expenditure upon 'trade privileges' nearly equals that upon the support of sick members or the assistance of members out of work. The total 'donation benefit' is 8,138*l.*; the sick benefit, 8,841*l.*; the 'trade' outlay, 7,063*l.* The society, therefore, does its trade work like other unions, though it learnt moderation from last year's distress.

"Still we have brought but 12,000*l.* out of 16,000*l.* to account, and the reader will wonder what becomes of the yet considerable balance. It appears to be consumed for the most part in the expenses of management. Salaries absorb something like 1,300*l.*, and office charges rather more, taking perhaps about 3,000*l.* between them; but this represents, it should be remembered, the demands of some two hundred branches. There is, as far as we can discern, no obviously questionable item in the account, though it is deplorable to see 148*l.* set down to 'defalcations,' and the charge, it may be hoped, is not of yearly occurrence. Delegations cost 200*l.*, council meetings 64*l.*, and law expenses 77*l.*—not a heavy liability. At one point only does the financial management of the society appear rather doubtful. It possesses, as we have said, an accumulated capital of 15,000*l.*, and as much as 13,000*l.* stood to its credit in December, 1866. Yet, while no more than 166*l.* is carried to profit as 'bank interest,' as much as 72*l.* is put down to loss as 'bank expenses;' so that the society gained only 94*l.* in the year from a money balance of 13,000*l.*

"'Wherever branches of this society have existed for any length of time, reductions of working hours and increase of wages have followed.' That brief statement is probably conclusive in the eyes of members as to the advantages of unionism. We might ask at what expense these gains were acquired, and how long they lasted; but we shall not at present open that inquiry. Whereas, however, Mr. Applegarth insists with peculiar emphasis on the inequalities of wages at various places, and obviously considers that they should be redressed by the influence of unionism, it is obvious to ask on what principle he would proceed. Workmen in the trade, he says, get 37*s.* a-week in one place, and 20*s.* in another; does he mean that the former rate is necessarily all right and the latter all wrong? Would he make the receipts in each case 28*s.* 6*d.*, or would he at once raise the 20*s.* to 37*s.*? In the presumption from which he starts he is certainly wrong. He maintains that there is no great difference nowadays between the cost of living at one place and the cost of living at another; but that proposition cannot be sustained. Railways have done much in the way of levelling, but the prices of all commodities, even of money, still vary in various places, and it is not unnatural that the price of labour should vary also.

"In the general conclusions, however, of the report before us we can cordially join. Mr. Applegarth is not content with advocating unionism as it is; he frankly confesses that 'there needs union beyond it,'—union not only among men against masters, but among masters and men together. He—experienced as he is in such matters—speaks more positively than we ventured to do upon the practicability of arbitration. 'The policy of employers is to combine with us, and not against us; and with the assistance of men like Mr. Rupert Kettle and Mr. Mundella—men of practical experience and sound judgment—with the result of their efforts in the past before us—we have every reason to believe that, though employers and workmen will each maintain their respective unions, arbitration will form the connecting link of 'union' between them. Let there be, then, a board of arbitration in every town in the United Kingdom; for this the workmen are ready. We shall then, in nine cases out of every twelve of our differences, be able to arrive at a mutual settlement.' To this we can only say, that if the carpenters and joiners will take the lead in bringing such a consummation to pass, they will do much to confirm the reputation their union has already acquired."

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—Quarter ended December, 1867.
BIRTHS and DEATHS—Quarter ended March, 1868.

A.—*Serial Table of* Marriages, Births, *and* Deaths, *returned in the Years* 1862-68, *and in the* Quarters *of those Years.*

Calendar Years, 1862-68:—*Numbers.*

Years.........	'68.	'67.	'66.	'65.	'64.	'63.	'62.
Marriages No.	—	178,791	187,776	185,474	180,387	173,510	164,030
Births........ „	—	767,897	753,870	748,069	740,275	727,417	712,684
Deaths .... „	—	471,102	500,689	490,909	495,531	473,837	436,566

Quarters *of each Calendar Year,* 1862-68.

(I.) Marriages:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	—	36,380	37,579	36,807	37,988	35,528	33,953
June .... „	—	45,462	48,577	45,827	44,599	44,146	40,853
September „	—	44,003	46,257	45,852	44,675	41,932	40,600
December „	—	52,946	55,363	56,988	53,125	51,904	48,624

(II.) Births:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	198,594	195,355	196,753	194,130	192,947	186,341	181,990
June .... „	—	199,649	192,427	192,988	188,835	189,340	185,554
September „	—	190,255	179,096	181,941	181,015	173,439	172,709
December „	—	182,638	185,594	179,010	177,478	178,297	172,431

(III.) Deaths:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	120,095	134,254	138,136	140,410	142,977	128,096	122,019
June .... „	—	112,523	128,551	115,892	116,880	118,121	107,392
September „	—	108,462	116,650	113,362	112,223	112,504	92,381
December „	—	115,863	117,352	121,245	123,451	115,116	114,774

Annual Rates per Cent. of PERSONS MARRIED, *and of* BIRTHS, *and* DEATHS, *during the Years* 1862-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1862-68:—*General Percentage Results.*

YEARS............	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
Estmtd. Popln. of England *in thousands* in middle of each Year....	21,649	—	21,430	21,210	20,991	20,772	20,554	20,336
Persons Married Per ct.	—	1·689	1·668	1·770	1·768	1·736	1·688	1·614
Births .... „	—	3·508	3·584	3·554	3·564	3·564	3·539	3·504
Deaths.... „	—	2·257	2·198	2·361	2·339	2·386	2·305	2·147

QUARTERS *of each Calendar Year*, 1862-68.

(I.) PERSONS MARRIED:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	—	1·398	1·382	1·442	1·428	1·472	1·408	1·360
June........ „	—	1·717	1·704	1·840	1·754	1·724	1·726	1·614
Septmbr. „	—	1·635	1·628	1·728	1·732	1·704	1·616	1·582
Decembr. „	—	1·995	1·954	2·064	2·146	2·022	1·996	1·890

(II.) BIRTHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	3·694	3·674	3·713	3·777	3·765	3·740	3·691	3·644
June........ „	—	3·637	3·742	3·644	3·692	3·651	3·700	3·665
Septmbr. „	—	3·371	3·518	3·346	3·434	3·453	3·343	3·365
Decembr. „	—	3·347	3·368	3·458	3·370	3·376	3·428	3·350

(III.) DEATHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	2·234	2·576	2·551	2·652	2·723	2·772	2·538	2·443
June........ „	—	2·220	2·109	2·434	2·217	2·260	2·308	2·121
Septmbr. „	—	2·024	2·006	2·179	2·140	2·141	2·169	1·800
Decembr. „	—	2·211	2·137	2·187	2·283	2·349	2·213	2·230

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended March*, 1868.

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Mean Temperature.
			Beef.	Mutton.		In-door.	Out-door.	
1866	£	*s.* *d.*	*d.* *d.* *d.*	*d.* *d.* *d.*	*s.* *s.* *s.*			
Mar. 31	87	45 6	4½—6¾ 5⅝	5½—7¾ 6⅝	55—90 72	139,546	759,402	41°·2
June 30	86⅛	46 6	4¾—7 5⅞	5½—8½ 7	60—95 77	123,657	734,139	53·0
Sept. 30	88⅝	51 -	5¼—7½ 6⅜	5½—8¼ 6⅞	75—120 97	120,955	717,553	58·9
Dec. 31	89⅛	56 8	4¾—7 5⅞	5¼—7½ 6⅜	85—130 107	133,979	734,312	46·2
1867								
Mar. 31	90⅞	60 7	4¾—7 5⅞	5—7¼ 6⅛	115—160 137	147,620	832,364	38·9
June 30	92⅛	63 11	4¾—6¾ 5¾	5¼—7¼ 6¼	135—175 155	134,678	779,629	53·5
Sept. 30	94⅛	65 4	4¾—6¾ 5¾	5—7 6	100—155 127	129,838	743,977	59·7
Dec. 31	94⅜	67 11	4½—6¾ 5⅝	4½—6½ 5½	110—155 132	146,237	771,230	42·5
1868								
Mar. 31	93	72 2	4¼—6½ 5⅜	4¼—6½ 5⅜	125—170 147	159,716	860,165	41·4

C.—*General Average Death-Rate Table.*

⁂ This table is not given in the Registrar-General's Report for the current quarter.

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per Cent. in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1868-66.

	Area in Statute Acres.	Population Enumerated. 1861.	Quarters ending	Annual Rate of Mortality per Cent. in each Quarter of the Years 1868.	Mean '58-67.	1867.	1866.
In 142 Districts, and 56 Sub-districts, comprising the *Chief Towns*	3,287,151	10,930,841	March ..	2·403	2·761	2·732	2·966
			June	—	2·353	2·199	2·639
			Sept.	—	2·249	2·243	2·513
			Dec.	—	2·460	2·380	2·439
			Year	—	2·456	2·389	2·639
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,037,732	9,135,383	Year	—	2·014	1·955	2·008
			March ..	2·012	2·350	2·315	2·250
			June	—	2·057	1·991	2·171
			Sept.	—	1·746	1·696	1·749
			Dec.	—	1·902	1·818	1·860

Note.—The three months, January, February, March, contain 90, in leap year 91 days; the three months, April, May, June, 91 days; each of the last two quarters of the year 92 days. For this inequality a correction has been made in the calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE *and* RAINFALL *in last Winter Quarter, in Fourteen Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1868.	Births in 13 Weeks ending 28th Mar., 1868.	Deaths in 13 Weeks ending 28th Mar., 1868.	Annual Rate to 1,000 Living during the 13 Weeks ending 28th March, 1868. Births.	Deaths.	Mean Temperature in 13 Weeks ending 28th March, 1868.	Rainfall in Inches in 13 Weeks ending 28th Mar., 1868.
Total of 14 large towns....	6,431,420	61,744	40,764	38·53	25·44	41·4	8·5
London	3,126,635	29,891	18,144	38·37	23·29	41·4	6·6
Bristol (city)	167,487	1,599	1,070	38·22	25·64	41·7	9·7
Birmingham (borough)....	352,296	3,269	2,127	37·24	24·23	41·4	7·2
Liverpool (borough)	500,676	5,100	3,740	40·88	29·98	41·8	5·6
Manchester (city)	366,835	3,531	2,859	38·63	31·28	41·8	8·9
Salford (borough)	117,162	1,175	822	40·25	28·16	41·8	9·0
Sheffield (borough)	232,362	2,327	1,357	40·19	23·44	40·7	7·0
Bradford (borough)	134,000	1,324	733	39·66	21·96	—	—
Leeds (borough)............	236,746	2,708	1,415	45·91	23·99	41·7	6·4
Hull (borough)	122,628	1,124	676	36·79	22·13	39·7	5·8
Newcastle-on-Tyne (borough)	127,701	1,250	820	39·29	25·77	40·7	5·3
Edinburgh (city)	177,039	1,612	1,234	36·55	27·98	41·8	8·8
Glasgow (city)	449,868	4,580	3,388	40·86	30·23	41·1	24·5
Dublin (city and some suburbs)	319,985	2,254	2,379	28·27	29·84	43·7	6·0

Note.—The population used in deducing the birth and death-rates for the quarter is not estimated for any particular quarter, but for the middle of the year.

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended* 31*st December*, 1867-65; *and* BIRTHS *and* DEATHS *in Quarters ended* 31*st March*, 1868-66.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute Acres.	POPULATION, 1861. (*Persons.*)	MARRIAGES in Quarters ended 31st December.		
			1867.	1866.	1865.
		No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	37,324,883	20,066,224	52,946	55,363	56,988
I. London	77,997	2,803,989	8,525	9,103	9,738
II. South-Eastern	4,065,935	1,847,661	4,772	4,982	4,930
III. South Midland	3,201,290	1,295,515	3,345	3,362	3,325
IV. Eastern	3,214,099	1,142,562	3,076	3,121	3,132
V. South-Western	4,993,660	1,835,714	3,646	3,824	3,961
VI. West Midland	3,865,332	2,436,568	6,084	6,386	6,981
VII. North Midland	3,540,797	1,288,928	3,257	3,313	3,217
VIII. North-Western	2,000,227	2,935,540	8,050	8,653	8,583
IX. Yorkshire	3,654,636	2,015,541	5,897	6,129	6,285
X. Northern	3,492,322	1,151,372	3,010	3,013	3,284
XI. Monmthsh. & Wales	5,218,588	1,312,834	3,284	3,477	3,552

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 31st March.			DEATHS in Quarters ended 31st March.		
	1868.	1867.	1866.	1868.	1867.	1866.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	198,594	195,355	196,753	120,095	134,254	138,136
I. London	29,891	29,501	28,410	18,144	20,467	20,022
II. South-Eastern	17,450	17,447	16,999	9,611	10,729	10,567
III. South Midland	11,979	12,056	11,865	6,681	7,894	7,460
IV. Eastern	9,961	10,060	10,109	5,630	6,366	6,613
V. South-Western	14,893	15,130	15,964	9,365	10,899	10,894
VI. West Midland	23,850	24,407	24,823	14,162	15,699	16,997
VII. North Midland	12,208	11,734	11,890	6,887	7,711	7,849
VIII. North-Western	31,872	30,277	30,416	21,562	23,468	26,507
IX. Yorkshire	21,602	20,462	20,871	12,283	14,165	15,571
X. Northern	12,851	12,585	12,904	8,012	8,550	7,535
XI. Monmthsh. & Wales	12,037	11,696	12,502	7,758	8,306	8,121

G.—*General Meteorological Table, Quarter ended March,* 1868.

[Abstracted from the particulars supplied to the Registrar-General by James Glaisher, Esq., F.R.S., &c.]

1868. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 97 Years.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.		Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years
	°	°	°	°	°	°	°	°	°	°	In	In.	Gr.	Gr.
Jan.	37·2	+1·0	−0·9	35·6	−1·3	33·4	−1·5	8·6	−1·2	37·7	·191	−·011	2·2	−0·2
Feb. ..	43·0	+4·6	+4·1	40·4	+3·1	37·3	+2·5	13·1	+1·7	41·5	·223	+·019	2·6	+0·2
March ...	44·0	+3·1	+2·5	41·4	+2·2	38·3	+2·0	16·1	+1·6	45·8	·231	+·016	2·7	+0·2
Mean ...	41·4	+2·9	+1·9	39·1	−1·3	36·3	+1·0	12·6	+0·7	41·7	·215	+·008	2·5	+0·1

1868. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years	Mean.	Diff. from Average of 27 Years.	Amnt.	Diff. from Average of 53 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
Jan.	86	− 2	29·741	−·005	555	+ 1	4·2	+2·4	366	16	12	3	15·0	42·6
Feb. ...	80	− 5	29·969	+·176	553	0	1·3	−0·3	360	12	15	2	23·9	42·0
March .	80	− 2	29·824	+·081	549	− 1	1·1	−0·5	353	14	12	5	21·0	44·2
Mean ..	82	− 3	29·845	+·084	552	0	Sum 6·6	Sum +1·6	Mean 360	Sum 42	Sum 39	Sum 10	Lowest 15·0	Highest 44·2

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

The daily ranges of temperature in January were 1°·2 less than the average, and were respectively 1°·7 and 1°·6 greater than the averages in February and March.

The fall of rain was 2·4 in. in excess in January, and 0·3 in. and 0·5 in. respectively in defect in February and March.

The mean temperature of the air at Greenwich in the three months ending February, constituting the three winter months, was 39°·2, being 0°·1 higher than the average of the preceding 27 years.

Thunderstorms occurred on the 15th January at Hull and Stonyhurst; and on the 21st at Truro and Bournemouth. On the 1st February at Halifax. On the 7th March at Allenheads; on the 16th at Streatley Vicarage; on the 17th at Strathfield Turgiss, Norwich, Ripon, and North Shields; and on the 23rd at Halifax.

Thunder was heard but lightning was not seen on the 28th February at Carlisle. On the 8th March at Helston, Allenheads, and Bywell; on the 12th at Worthing and Hull; on the 16th at Streatley Vicarage; and on the 17th at Taunton, Wilton, Lampeter, Holkham, and Hull.

H.—*Special Meteorological Table, Quarter ended* 31*st March*, 1868.

1	2	3	4	5	6	7	8	9
Names of Stations.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	*Mean Temperature of the Air.*	Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·865	55·0	29·0	26·0	28·0	7·6	43·4	86
Barnstaple	29·807	57·5	24·0	33·5	27·7	9·7	44·4	86
Osborne	29·821	65·7	23·3	42·4	37·4	16·6	42·6	93
Royal Observatory	29·806	61·7	22·8	38·9	31·5	12·6	41·4	82
Royston	29·801	61·0	22·1	38·9	32·4	12·2	41·4	83
Lampeter	29·816	66·2	14·4	51·8	36·2	12·4	41·6	87
Norwich	29·755	59·8	27·0	32·8	28·4	10·9	41·1	86
Derby	29·723	62·0	25·0	37·0	32·0	11·8	42·1	80
Manchester	29·715	60·2	24·2	36·0	32·9	13·0	41·8	87
Wakefield	29·726	62·0	23·0	39·0	34·0	13·2	42·3	76
Stonyhurst	29·656	58·0	25·2	32·8	29·5	10·6	41·3	89
North Shields	29·707	58·5	27·0	31·5	28·7	9·2	40·8	81

10	11	12	13	14	15	16	17	18
	Wind.						Rain.	
Names of Stations.	Mean estimated Strength.	Relative Proportion of				Mean Amount of Cloud.	Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·6	6	4	9	11	5·6	53	7·2
Barnstaple	1·3	5	3	9	13	4·7	60	11·5
Osborne	0·7	5	4	8	13	7·1	38	6·9
Royal Observatory	0·9	5	2	9	14	7·0	48	6·6
Royston	—	6	1	8	15	7·1	60	5·7
Lampeter	0·8	5	5	8	12	7·7	58	13·8
Norwich	—	5	3	9	13	—	37	5·4
Derby	—	6	2	6	16	—	58	6·7
Manchester	—	3	6	14	7	7·5	57	8·8
Wakefield	2·1	4	3	8	15	6·8	50	6·5
Stonyhurst	0·7	4	4	8	14	7·6	68	14·6
North Shields	2·0	7	4	6	13	5·6	49	4·9

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 31ST MARCH, 1868.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population, Estimated to the Middle of each Year, during each Quarter of the Years* 1868 *to* 1864 *inclusive.*

	1868.		1867.		1866.		1865.		1864.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	28,736	3·60	27,969	3·52	28,876	3·66	28,608	3·65	28,177	3·61
Deaths........	18,036	2·26	19,981	2·51	19,075	2·42	20,786	2·65	22,576	2·89
Marriages ..	5,287	0·66	5,332	0·66	5,627	0·71	5,407	0·69	5,333	0·63
Mean Temperature	40°·6		36°·5		38°·0		35°·3		35°·7	
2nd Quarter—										
Births	—	—	30,393	3·83	29,801	3·78	30,332	3·86	29,992	3·84
Deaths........	—	—	17,464	2·20	18,556	2·35	17,066	2·17	18,445	2·36
Marriages ..	—	—	5,602	0·70	6,019	0·76	5,698	0·72	5,710	0·73
Mean Temperature			49°·0		49°·3		51°·5		49°·9	
3rd Quarter—										
Births	—	—	27,888	3·51	27,197	3·45	27,320	3·48	27,063	3·47
Deaths........	—	—	15,106	1·90	15,451	1·95	15,907	2·02	16,131	2·06
Marriages ..	—	—	5,047	0·63	5,089	0·64	5,335	0·68	4,993	0·64
Mean Temperature			55°·2		54°·4		57°·5		54°·5	
4th Quarter—										
Births	—	—	27,865	3·51	27,765	3·52	26,866	3·42	27,213	3·49
Deaths........	—	—	16,473	2·07	18,191	2·30	17,072	2·17	17,151	2·19
Marriages ..	—	—	6,540	0·82	6,894	0·87	7,137	0·91	6,639	0·85
Mean Temperature			42°·3		43°·5		43°·4		42°·0	
Year—										
Population.	3,188,125		3,170,769		3,153,413		3,136,057		3,118,701	
Births	—	—	114,115	3·59	113,639	3·60	113,126	3·60	112,445	3·60
Deaths	—	—	68,024	2·14	71,273	2·26	70,821	2·25	74,303	2·38
Marriages ..	—	—	22,521	0·70	23,629	0·75	23,577	0·75	22,675	0·72

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending* 31*st March,* 1868, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

	Population.		Total Births.			Illegitimate Births.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	28,736	3·60	28	2,910	10·1	9·9
128 town districts	1,615,475	1,735,527	17,206	3·96	25	1,668	9·6	10·8
890 rural ,,	1,446,819	1,452,598	11,530	3·17	31	1,242	10·7	9·2

	Population.		Deaths.			Marriages.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	18,036	2·26	44	5,287	0·66	150
128 town districts	1,615,475	1,735,527	11,526	2·65	37	3,407	0·78	127
890 rural ,,	1,446,819	1,452,598	6,510	1·79	55	1,880	0·51	193

Note.—The constitution of several of the districts was altered on January 1, 1868; consequently the numbers of the population in the town and rural districts differ somewhat from those of previous years.

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending* 31*st March,* 1868.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	10·1						
Northern	8·0	Shetland	7·1	Forfar	11·8	Lanark	8·7
North-Western	6·2	Orkney	5·3	Perth	11·5	Linlithgow .	7·0
North-Eastern	16·2	Caithness	9·4	Fife	9·3	Edinburgh .	9·9
East Midland ..	10·8	Sutherland...	10·6	Kinross	2·2	Haddington	9·3
West Midland.	7·8	Ross and Cromarty	4·8	Clackmannan	9·2	Berwick ...	11·9
South-Western	8·5	Inverness	7·4	Stirling	7·0	Peebles........	11·0
South-Eastern.	9·6	Nairn...........	9·4	Dumbarton ..	7·0	Selkirk	6·4
Southern	14·9	Elgin	16·2	Argyll	9·7	Roxburgh ..	11·7
		Banff	18·7	Bute	8·6	Dumfries	14·1
		Aberdeen	16·3	Renfrew........	7·4	Kirkcudbright ..	17·3
		Kincardine....	11·3	Ayr................	8·8	Wigtown	19·0

IV.—*Divisional Table:*—MARRIAGES, BIRTHS, *and* DEATHS *Registered in the Quarter ended* 31*st March*, 1868.

1 DIVISIONS. (Scotland)	2 AREA in Statute Acres.	3 POPULATION, 1861. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
SCOTLAND .... *Totals*	19,639,377	3,062,294	5,287	28,736	18,036
I. Northern	2,261,622	130,422	163	799	481
II. North-Western........	4,739,876	167,829	268	1,106	677
III. North-Eastern	2,429,594	366,783	480	3,308	1,797
IV. East Midland	2,790,492	523,822	836	4,537	2,885
V. West Midland	2,693,176	242,507	332	2,045	1,376
VI. South-Western........	1,462,397	1,008,253	2,160	11,315	7,238
VII. South-Eastern	1,192,524	408,962	807	4,028	2,514
VIII. Southern	2,069,696	214,216	241	1,598	1,068

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 31*st December*, 1867; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 31*st March*, 1868.

COUNTRIES.	[000's omitted]. Area in Statute Acres.	Population, 1861. (*Persons.*)	Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	20,066,	52,946	2·6	198,594	9·9	120,095	6·0
Scotland	19,639,	3,062,	6,540	2·1	28,736	9·4	18,036	5·9
Ireland	20,322,	5,799,	6,278	1·1	38,182	6·6	25,274	4·3
GREAT BRITAIN AND IRELAND	77,287,	28,927,	65,764	2·3	265,512	9·1	163,415	5·6

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far these numbers are the exponents of actual facts does not at present appear to be known. It will be seen that the Irish ratios are much under those of England and Scotland.—ED. *S. J.*

umber of Occupiers of Land and of Owners of Live Stock; the Average Size of each Holding in Great Britain in 1867.

1 England. — Counties, Proper.	2 Occupiers of Land, Owning Live Stock, and Occupiers only.	3 Owners of Live Stock only.	4 Average Acreage of each Occupier.
uth-Eastern—			
Surrey	3,831	433	72·0
Kent	8,089	192	89·0
Sussex	7,903	143	79·4
Southampton	6,579	270	102·7
Berks	3,128	119	114·0
Total	29,530	1,157	88·5
uth Midland—			
Middlesex	1,743	574	62·5
Hertford	2,654	29	125·0
Buckingham	3,831	86	101·3
Oxford	3,303	43	120·3
Northampton	6,000	49	89·0
Huntingdon	2,173	42	95·0
Bedford	2,921	22	85·4
Cambridge	4,770	68	98·3
Total	27,395	913	99·3
stern—			
Essex	8,863	151	89·1
Suffolk	7,453	108	99·7
Norfolk	10,839	239	96·1
Total	27,155	498	95·3
uth-Western—			
Wilts	5,732	59	122·5
Dorset	4,459	79	96·1
Devon	16,082	145	61·0
Cornwall	12,089	131	39·0
Somerset	11,063	177	69·8
Total	49,425	591	68·4
st Midland—			
Gloucester	10,810	125	56·4
Hereford	7,032	82	56·8
Salop	10,102	138	62·8
Stafford	13,614	263	42·0
Worcester	7,305	132	51·5
Warwick	6,049	571	75·5
Total	54,912	1,311	55·4
North Midland—			
Leicester	7,202	114	62·9
Rutland	1,158	17	68·0
Lincoln	20,201	261	69·7
Nottingham	6,675	191	64·0
Derby	1,1794	171	40·5
Total	47,030	754	60·5
North-Western—			
Chester	11,493	136	43·1
Lancaster	20,781	447	35·1
Total	32,274	583	38·3
York—			
East Riding	7,243	136	86·5
North "	12,631	372	61·3
West "	25,495	371	44·9
Total	45,369	879	56·5
Northern—			
Durham	5,146	197	75·7
Northumberland	5,787	362	114·2
Cumberland	6,539	107	78·8
Westmorland	3,102	53	71·6
Total	20,574	719	85·1
Total of England	333,664	7,405	68·0
Wales—			
Monmouth	4,924	52	42·6
North Wales	24,401	352	41·1
South "	27,671	220	55·7
Total of Wales	56,996	624	47·8
Total of Scotland	78,792	4,629	55·6
Total of Great Britain	469,452	12,658	63·6

The Agricultural Statistics of Great Britain.—

[000's omitted, consequently 2,452, = 2,452,000.]

1	2	3	4	5	6	7	8	9	10	11
			Number of Acres under Crops and Grass.						CATTLE.—Number to every 100 Acres under Crops, Bare Fallow, and Grass.	SHEE—Numbe to every 100 Acres under Crops, Bare Fallow, and Grass.
				Whereof under						
ENGLAND.—Counties, Proper.	Population (1866).	Total Area in Statute Acres.	Total under all kinds of Crops, Bare Fallow, and Grass.	Corn Crops.	Green Crops.	Clover and Artificial and other Grasses under Rotation.	Permanent Pasture, Meadow, and Grass not broken up in Rotation (exclusive of Hill Pastures).	Percentage of Corn Crops to Total under all kinds of Crops, Bare Fallow, and Grass.		
***South-Eastern*—**										
Surrey	930,	479,	276,	99,	39,	29,	94,	35·8	12·8	41·5
Kent	812,	1,040,	720,	244,	77,	56,	288,	33·9	9·5	148·4
Sussex	380,	937,	628,	217,	72,	60,	240,	34·6	13·8	88·8
Southampton	532,	1,070,	675,	66,	135,	103,	145,	39·4	7·3	87·0
Berks	180,	451,	356,	144,	55,	40,	108,	40·5	8·3	96·1
Total	2,834,	3,977,	2,655,	970,	378,	288,	875,	36·5	10·1	100·3
***South Midland*—**										
Middlesex	2,414,	180,	109,	21,	9,	5,	72,	18·8	17·2	44·3
Hertford	177,	391,	331,	146,	44,	36,	90,	43·9	7·2	65·5
Buckingham	170,	467,	388,	134,	36,	28,	181,	34·4	14·8	90·0
Oxford	171,	473,	397,	160,	56,	43,	131,	40·2	10·5	94·3
Northampton	237,	630,	534,	181,	43,	31,	262,	33·9	18·0	104·3
Huntingdon	64,	230,	206,	100,	20,	13,	55,	48·5	10·0	77·3
Bedford	142,	296,	250,	115,	31,	19,	73,	46·0	10·0	77·3
Cambridge	171,	525,	469,	264,	70,	41,	74,	56·3	7·6	68·5
Total	3,546,	3,192,	2,684,	1,121,	309,	216,	938,	41·7	11·9	82·7
***Eastern*—**										
Essex	427,	1,060,	790,	399,	98,	83,	162,	50·5	7·8	58·3
Suffolk	337,	948,	743,	370,	119,	86,	139,	49·8	7·5	71·3
Norfolk	430,	1,354,	1,042,	455,	201,	164,	214,	43·7	9·9	74·5
Total	1,194,	3,362,	2,575,	1,224,	418,	333,	515,	47·5	8·4	68·6
***South-Western*—**										
Wilts	247,	865,	702,	218,	108,	71,	287,	31·0	10·7	103·3
Dorset	191,	632,	428,	109,	60,	46,	207,	25·4	14·9	115·8
Devon	595,	1,657,	982,	281,	141,	141,	343,	28·7	19·4	88·0
Cornwall	378,	874,	471,	138,	54,	109,	122,	29·3	28·7	86·7
Somerset	445,	1,049,	772,	147,	68,	57,	487,	19·1	22·9	93·1
Total	1,856,	5,077,	3,355,	893,	431,	424,	1,446,	26·6	19·1	95·7
***West Midland*—**										
Gloucester	502,	805,	610,	171,	64,	81,	282,	28·1	16·2	75·7
Hereford	129,	535,	400,	105,	38,	36,	205,	26·3	16·5	87·1
Salop	248,	826,	635,	172,	63,	68,	318,	27·0	17·4	78·8
Stafford	840,	728,	571,	127,	44,	47,	341,	22·3	19·9	63·0
Worcester	326,	472,	376,	122,	33,	33,	175,	32·5	12·5	70·7
Warwick	619,	564,	457,	150,	32,	38,	222,	32·8	16·6	88·1
Total	2,664,	3,930,	3,049,	847,	274,	303,	1,543,	27·7	16·6	76·6

reage of Crops and Grass in 1867.

[000's omitted, consequently 2,462, = 2,462,000.]

12 Pigs. — umber to very 100 Acres under Crops, Bare allow, and Grass.	13 Number of Acres Under Wheat.	14 Barley or Bere.	15 Oats.	16 Beans.	17 Peas.	18 Potatoes.	19 Turnips and Swedes.	20 Mangold.	21 Vetches, Lucerne, and any other Crops except Clover and Grass.	22 Bare Fallow, and Uncropped Arable Land.	23 ENGLAND. — Counties, Proper.
											South-Eastern—
14·1	43,	19,	26,	3,	7,	3,	20,	6,	8,	14,	Surrey
10·5	106,	40,	54,	24,	19,	10,	33,	8,	22,	14,	Kent
8·1	103,	25,	67,	8,	13,	2,	35,	8,	18,	29,	Sussex
12·1	113,	70,	66,	6,	9,	4,	93,	7,	26,	23,	Southampton
14·3	61,	38,	25,	14,	6,	—	37,	4,	12,	8,	Berks
11·2	426,	192,	238,	55,	54,	19,	218,	33,	86,	88,	Total
											South Midland—
13·9	10,	2,	6,	1,	1,	2,	2,	2,	3,	1,	Middlesex
12·7	59,	45,	25,	9,	7,	1,	28,	4,	9,	15,	Hertford
13·6	55,	30,	23,	18,	7,	1,	22,	3,	9,	10,	Buckingham
14·6	59,	52,	23,	17,	9,	1,	41,	3,	10,	7,	Oxford
9·4	75,	53,	17,	25,	10,	2,	28,	4,	7,	17,	Northampton
14·5	47,	22,	10,	15,	6,	2,	3,	4,	6,	17,	Huntingdon
16·4	50,	30,	10,	18,	6,	4,	13,	4,	8,	12,	Bedford
14·1	132,	55,	39,	27,	10,	8,	19,	13,	16,	20,	Cambridge
13·2	487,	289,	153,	130,	56,	21,	156,	37,	68,	99,	Total
											Eastern—
5·9	180,	107,	43,	43,	25,	9,	29,	26,	29,	49,	Essex
10·6	148,	138,	16,	36,	25,	2,	63,	33,	18,	29,	Suffolk
3·9	195,	191,	33,	14,	14,	5,	145,	36,	10,	8,	Norfolk
6·4	523,	436,	92,	93,	64,	16,	237,	95,	57,	86,	Total
											South-Western—
0·7	99,	65,	32,	13,	7,	3,	71,	4,	23,	18,	Wilts
1·0	44,	38,	21,	3,	3,	2,	43,	4,	8,	8,	Dorset
0·5	113,	78,	88,	1,	1,	16,	87,	18,	9,	75,	Devon
4·4	48,	46,	44,	—	—	6,	30,	8,	2,	48,	Cornwall
2·9	72,	34,	24,	15,	3,	9,	36,	10,	10,	13,	Somerset
1·3	376,	261,	209,	32,	14,	36,	267,	44,	52,	162,	Total
											West Midland—
3·1	90,	41,	15,	17,	8,	5,	42,	3,	13,	11,	Gloucester
9·1	59,	22,	11,	7,	6,	3,	28,	1,	7,	9,	Hereford
2·3	83,	53,	23,	4,	8,	5,	52,	2,	3,	14,	Salop
1·9	54,	31,	31,	4,	6,	8,	29,	2,	5,	11,	Stafford
4·4	68,	20,	7,	19,	9,	4,	17,	3,	8,	11,	Worcester
2·4	74,	27,	14,	23,	12,	2,	20,	4,	6,	15,	Warwick
·2	428,	194,	101,	74,	49,	27,	188,	15,	42,	71,	Total

The Agricultural Statistics of Great Britain—

[000's omitted, consequently 2,452, = 2,452,000.]

1	2	3	4	5	6	7	8	9	10	11
			Number of Acres under Crops and Grass.							
				Whereof under						
ENGLAND. — Counties, Proper.	Population (1866).	Total Area in Statute Acres.	Total under all kinds of Crops, Bare Fallow, and Grass.	Corn Crops.	Green Crops.	Clover and Artificial and other Grasses under Rotation.	Permanent Pasture, Meadow, and Grass not broken up in Rotation (exclusive of Hill Pastures).	Percentage of Corn Crops to Total under all kinds of Crops, Bare Fallow, and Grass.	CATTLE — Number to every 100 Acres under Crops, Bare Fallow, and Grass.	SHEEP. — Number to every 100 Acres under Crops, Bare Fallow, and Grass
North Midland—										
Leicester	242,	514,	453,	115,	26,	26,	275,	25·4	25·4	102·2
Rutland	21,	96,	79,	26,	8,	7,	36,	33·6	16·4	139·3
Lincoln	415,	1,775,	1,408,	593,	224,	159,	402,	42·1	11·6	117·4
Nottingham	308,	526,	427,	161,	51,	53,	145,	37·6	15·3	74·9
Derby	367,	659,	477,	80,	24,	39,	324,	16·7	25·4	54·2
Total	1,353,	3,570,	2,844,	975,	333,	284,	1,182,	34·2	16·8	98·5
North-Western—										
Chester	536,	707,	496,	96,	37,	44,	314,	19·4	22·8	53·7
Lancaster	2,692,	1,219,	730,	103,	58,	60,	499,	14·1	27·6	46·2
Total	3,228,	1,926,	1,226,	199,	95,	104,	813,	16·2	25·6	49·1
York—										
East Riding	295,	771,	627,	269,	100,	89,	146,	43·0	9·5	87·7
North "	264,	1,350,	774,	222,	78,	69,	365,	28·7	16·8	90·3
West "	1,624,	1,709,	1,145,	256,	106,	98,	657,	22·3	18·5	71·2
Total	2,183,	3,830,	2,546,	747,	284,	256,	1,168,	29·3	15·7	81·0
Northern—										
Durham	592,	623,	390,	104,	33,	42,	183,	26·6	13·1	55·9
Northumberland	368,	1,249,	661,	147,	60,	85,	347,	22·2	11·2	132·8
Cumberland	211,	1,001,	515,	108,	50,	105,	242,	20·9	20·2	101·9
Westmorland	62,	485,	222,	22,	11,	20,	166,	9·9	22·8	147·4
Total	1,233,	3,358,	1,788,	381,	154,	252,	938,	21·3	15·6	108·8
Total of England	20,091,	32,222,	22,722,	7,357,	2,676,	2,460,	9,418,	32.3	15·1	86·3
Wales—										
Monmouth	185,	368,	210,	42,	16,	18,	127,	20·3	16·8	87·3
North Wales	436,	2,003,	1,007,	233,	68,	152,	516,	22·6	23·5	106·1
South "	751,	2,731,	1,512,	288,	70,	148,	956,	19·6	20·5	96·3
Total of Wales	1,372,	5,102,	2,729,	563,	154,	318,	1,599,	21·3	21·2	88·3
Total of Scotland	3,136,	19,640,	4,380,	1,364,	668,	1,251,	1,054,	31·1	22·4	157·4
Total of Great Britain	24,599,	56,964,	29,832,	9,284,	3,498,	3,989,	12,071,	31·1	16·7	96·9

of Crops and Grass in 1867.

[000's omitted, consequently 2,452, = 2,452,000.]

13	14	15	16	17	18	19	20	21	22	23
Number of Acres Under										
Wheat.	Barley or Bere.	Oats.	Beans.	Peas.	Potatoes.	Turnips and Swedes.	Mangold.	Vetches, Lucerne, and any other Crops except Clover and Grass.	Bare Fallow, and Uncropped Arable Land.	ENGLAND. — Counties, Proper.
										North Midland—
43,	32,	21,	12,	7,	2,	16,	4,	3,	11,	Leicester
10,	10,	3,	2,	1,	—	6,	1,	1,	2,	Rutland
273,	148,	111,	33,	25,	34,	138,	14,	17,	30,	Lincoln
68,	50,	19,	13,	9,	5,	37,	3,	6,	17,	Nottingham
28,	15,	31,	2,	2,	3,	14,	1,	5,	10,	Derby
422,	255,	185,	62,	44,	44,	211,	23,	33,	70,	Total
										North-Western—
38,	6,	43,	7,	—	23,	10,	1,	2,	5,	Chester
34,	8,	54,	6,	—	38,	13,	1,	4,	10,	Lancaster
72,	14,	97,	13,	—	61,	23,	2,	6,	15,	Total
										York—
112,	50,	82,	13,	10,	9,	69,	1,	10,	25,	East Riding
74,	58,	73,	11,	5,	9,	59,	1,	5,	39,	North „
97,	73,	65,	12,	7,	22,	66,	1,	13,	28,	West „
283,	181,	220,	36,	22,	40,	194,	3,	28,	92,	Total
										Northern—
40,	13,	44,	4,	3,	6,	23,	—	4,	29,	Durham
38,	29,	70,	6,	4,	5,	51,	—	3,	21,	Northumberland
23,	12,	72,	—	1,	12,	35,	—	1,	11,	Cumberland
2,	3,	17,	—	—	1,	8,	—	1,	2,	Westmorland
103,	57,	203,	10,	8,	24,	117,	—	9,	63,	Total
3,120,	1,879,	1,498,	505,	310,	288,	1,611,	253,	380,	746,	Total of England
										Wales—
20,	13,	8,	1,	2,	2,	10,	1,	3,	7,	Monmouth
61,	57,	109,	3,	2,	23,	32,	1,	13,	35,	North Wales
56,	91,	138,	—	1,	22,	36,	2,	8,	51,	South „
137,	161,	255,	4,	5,	47,	78,	4,	24,	93,	Total of Wales
111,	219,	997,	27,	3,	157,	485,	1,	20,	84,	Total of Scotland
3,368,	2,259,	2,750,	536,	318,	492,	2,174,	258,	424,	923,	Total of Great Britain

Trade of United Kingdom, 1867-66-65.—*Distribution of* **Exports** *from United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	Whole Years.					
	1867.		1866.		1865.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	[illegible]
I.—Foreign Countries:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	31,354,	6,723,	28,378,	7,776,	26,337,	[illegible]
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	37,302,	32,786,	37,928,	25,849,	35,429,	[illegible]
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	43,118,	17,462,	45,987,	17,408,	39,652,	[illegible]
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	5,642,	7,302,	6,185,	8,254,	4,827,	[illegible]
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	20,261,	15,295,	21,253,	15,637,	27,619,	[illegible]
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	289,	274,	415,	279,	509,	[illegible]
Western Africa	1,519,	814,	1,457,	601,	1,347,	[illegible]
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	73,	138,	116,	163,	122,	[illegible]
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	850,	2,394,	1,291,	2,647,	1,363,	[illegible]
South Sea Islands	26,	20,	62,	138,	27,	[illegible]
China, including **Hong Kong**	9,842,	9,037,	11,328,	8,951,	12,062,	[illegible]
United States of America	41,048,	21,822,	46,853,	28,484,	21,549,	[illegible]
Mexico and Central America	1,119,	1,050,	874,	1,438,	3,911,	[illegible]
Foreign West Indies and Hayti	4,798,	3,318,	3,409,	3,662,	5,533,	[illegible]
South America (Northern), New Granada, Venezuela, and Ecuador	1,177,	2,710,	1,866,	3,402,	1,837,	[illegible]
„ **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	8,259,	3,967,	6,134,	3,220,	7,952,	[illegible]
„ **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	8,028,	9,984,	9,840,	11,470,	9,068,	[illegible]
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	108,	8,	149,	18,	154,	[illegible]
Total—Foreign Countries	214,813,	135,104,	223,525,	139,397,	199,298,	[illegible]
II.—British Possessions:						
British India, Ceylon, and Singapore	30,150,	24,688,	41,764,	23,030,	43,272,	[illegible]
Austral. Cols.—N. So. W., Vict., and Queensld.	8,556,	6,619,	7,767,	9,133,	7,102,	[illegible]
„ „ So. Aus., W. Aus., Tasm., and N. Zealand	4,334,	3,018,	3,657,	4,529,	3,181,	[illegible]
British North America	6,807,	5,853,	6,869,	6,830,	6,350,	[illegible]
„ W. Indies with Btsh. Guiana & Honduras	6,058,	2,485,	6,615,	2,865,	7,372,	[illegible]
Cape and Natal	2,741,	1,894,	2,719,	1,399,	2,446,	[illegible]
Brt. W. Co. of Af., Ascension and St. Helena	497,	674,	527,	583,	450,	[illegible]
Mauritius	890,	377,	1,330,	569,	1,246,	[illegible]
Channel Islands	404,	472,	431,	493,	418,	[illegible]
Total—British Possessions	60,437,	46,080,	71,679,	49,431,	71,837,	[illegible]
General Total £	275,250,	181,184,	295,204,	188,828,	271,135,	[illegible]

IMPORTS.—(United Kingdom.)—First Two Months (*January—February*), 1868-67-66-65-64.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Two Months.) [000's omitted.] Foreign Articles Imported.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
Raw Matls.—*Textile.*	Cotton Wool	4,686,	6,265,	10,055,	7,057,	6,060,
	Wool (Sheep's)..	433,	898,	691,	728,	534,
	Silk	2,530,	2,781,	2,606,	2,283,	1,635,
	Flax	349,	580,	342,	324,	810,
	Hemp	283,	116,	254,	139,	209,
	Indigo	214,	279,	174,	211,	94,
		8,495,	10,919,	14,122,	10,742,	9,342,
„ „ *Various.*	Hides	202,	149,	197,	198,	169,
	Oils	437,	314,	469,	341,	293,
	Metals	401,	388,	442,	377,	492,
	Tallow	142,	76,	135,	155,	176,
	Timber................	205,	278,	588,	703,	973,
		1,387,	1,205,	1,831,	1,774,	2,103,
„ „ *Agrcltl.*	Guano	171,	31,	47,	218,	109,
	Seeds	409,	433,	425,	458,	553,
		580,	464,	472,	676,	662,
Tropical &c., Produce.	Tea	2,169,	2,098,	1,117,	681,	1,201,
	Coffee	345,	255,	211,	233,	271,
	Sugar & Molasses	1,466,	1,594,	1,443,	993,	935,
	Tobacco	316,	230,	304,	282,	263,
	Rice	139,	37,	80,	56,	85,
	Fruits	264,	75,	50,	81,	62,
	Wines	745,	604,	628,	465,	708,
	Spirits	285,	293,	247,	203,	331,
		5,729,	5,186,	4,080,	2,994,	3,856,
Food	Grain and Meal.	5,870,	4,868,	4,840,	1,509,	3,263,
	Provisions	1,374,	987,	981,	1,016,	987,
		7,244,	5,855,	5,321,	2,525,	4,200,
Remainder of Enumerated Articles		1,524,	652,	632,	579,	572,
Total Enumerated Imports		24,959,	24,281,	26,458,	19,290,	20,735,
Add for Unenumerated Imports (say)		6,240,	6,070,	6,614,	4,822,	5,183,
Total Imports		31,199,	30,351,	33,072,	24,112,	25,918,

EXPORTS.—(United Kingdom.)—**First Three Months** (*January — March*), **1868-67-66-65-64.**—*Declared Real Value, at Port of Shipment, of Articles of* BRITISH *and* IRISH *Produce and Manufactures Exported from United Kingdom.*

(First Three Months.) [000's omitted.] BRITISH PRODUCE, &c., EXPORTED.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
MANFRS.—*Textile.*	Cotton Manufactures..	12,452,	13,567,	15,241,	10,947,	10,465,
	„ Yarn	4,168,	3,207,	3,769,	1,708,	2,103,
	Woollen Manufactures	4,262,	5,416,	5,820,	4,047,	4,718,
	„ Yarn	1,681,	1,340,	1,329,	935,	1,073,
	Silk Manufactures........	246,	288,	402,	296,	387,
	„ Yarn	43,	58,	76,	60,	55,
	Linen Manufactures	1,713,	2,071,	2,717,	2,084,	1,998,
	„ Yarn	640,	674,	630,	515,	653,
		25,205,	26,621,	29,984,	20,592,	21,452,
Sewed.	Apparel	483,	457,	617,	536,	554,
	Haberdy. and Mllnry.	1,089,	1,213,	1,459,	1,002,	1,252,
		1,572,	1,670,	2,076,	1,538,	1,806,
METALS	Hardware	833,	870,	1,037,	892,	842,
	Machinery....................	809,	1,002,	968,	1,296,	924,
	Iron	2,924,	2,899,	3,121,	2,399,	2,982,
	Copper and Brass........	844,	657,	559,	913,	697,
	Lead and Tin	810,	684,	834,	576,	709,
	Coals and Culm	1,051,	995,	1,022,	905,	903,
		7,271,	7,107,	7,541,	6,981,	7,057,
Ceramic Manufcts.	Earthenware and Glass	555,	602,	562,	524,	490,
Indigenous Mnfrs.	Beer and Ale................	539,	555,	585,	595,	474,
	Butter	48,	69,	86,	56,	69,
	Cheese	30,	29,	39,	22,	41,
	Candles	40,	36,	54,	28,	32,
	Salt	89,	69,	65,	33,	48,
	Spirits	46,	41,	31,	69,	161,
	Soda	340,	368,	383,	228,	209,
		1,132,	1,167,	1,243,	1,031,	1,034,
Various Manufcts.	Books, Printed	145,	135,	139,	98,	100,
	Furniture	36,	39,	60,	91,	47,
	Leather Manufactures	559,	411,	534,	614,	525,
	Soap	60,	58,	43,	44,	53,
	Plate and Watches	75,	96,	86,	97,	98,
	Stationery....................	88,	81,	89,	95,	75,
		963,	820,	951,	1,039,	898,
Remainder of Enumerated Articles		2,600,	2,367,	2,557,	2,200,	2,212,
Unenumerated Articles..............................		2,125,	2,028,	2,077,	1,730,	1,718,
	TOTAL EXPORTS....................	41,423,	42,382,	46,991,	35,635,	36,667,

SHIPPING. — FOREIGN TRADE. —(United Kingdom.) — First Three Months (*January—March*), **1868-67-66-65.**—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Three Months.)	1868.			1867.		1866.		1865.	
ENTERED :—	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Vessels belonging to—	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	48	18,	375	64	26,	71	28,	63	27,
Sweden	79	17,	216	126	26,	110	23,	56	10,
Norway	387	102,	264	528	123,	555	128,	491	106,
Denmark	315	34,	108	511	57,	300	34,	227	24,
Prussia and Ger. Sts.	484	157,	324	563	155,	489	146,	358	102,
Holland and Belgium	361	53,	147	388	48,	504	67,	367	50,
France	527	53,	101	570	58,	794	79,	640	57,
Spain and Portugal	125	38,	304	94	33,	77	24,	83	27,
Italy & other Eupn. Sts.	127	47,	370	111	37,	263	86,	153	47,
United States	139	142,	1,022	91	100,	123	123,	60	67,
All other States	3	1,	333	—	—	3	1,	10	4,
	2,595	662,	255	3,056	658,	3,289	739,	2,508	521,
United Kingdm. & Depds.	5,115	1,885,	369	4,868	1,739,	5,422	1,861,	4,398	1,401,
Totals Entered	7,710	2,547,	330	7,914	2,397,	8,711	2,600,	6,906	1,922,
CLEARED :—									
Russia	116	46,	397	93	37,	104	42,	112	49,
Sweden	75	20,	267	107	26,	112	32,	73	19,
Norway	217	59,	272	296	74,	287	72,	266	67,
Denmark	311	40,	129	514	59,	261	36,	347	41,
Prussia and Ger. Sts.	655	197,	301	768	196,	657	168,	576	148,
Holland and Belgium	377	63,	167	355	59,	413	70,	385	56,
France	832	99,	119	898	105,	925	109,	894	98,
Spain and Portugal	108	38,	352	83	29,	79	24,	82	28,
Italy & other Eupn. Sts.	125	50,	400	165	59,	272	90,	253	82,
United States	173	167,	965	114	119,	137	140,	67	61,
All other States	2	1,	500	5	1,	6	3,	9	3,
	2,991	780,	261	3,398	764,	3,253	786,	3,064	652,
United Kingdm. & Depds.	6,883	2,396,	348	5,998	2,114,	6,287	2,183,	5,688	1,879,
Totals Cleared	9,874	3,176,	322	9,396	2,878,	9,540	2,969,	8,752	2,531,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the* Three Months (*January—March*), 1868-67-66.

[000's omitted.]

(First Three Months.)	1868.		1867.		1866.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	935,	—	1,168,	1,	1,309,	1,
So. Amca. and W. Indies	628,	644,	406,	1,140,	407,	1,137,
United States and Cal.	1,569,	572,	210,	347,	353,	318,
	3,132,	1,216,	1,784,	1,488,	2,069,	1,456,
France	175,	256,	160,	422,	28,	177,
Hanse Towns, Holl. & Belg.	1,	98,	22,	65,	147,	523,
Prtgl., Spain, and Gbrltr.	264,	27,	42,	20,	136,	24,
Mlta., Trky., and Egypt	11,	14,	11,	2,	1,	2,
China	—	—	—	—	—	—
West Coast of Africa	34,	3,	32,	1,	29,	6,
All other Countries....	333,	29,	102,	15,	16,	5,
Totals Imported....	3,950,	1,643,	2,153,	1,933,	2,426,	2,193,
Exported to:—						
France	2,868,	596,	1,079,	241,	944,	377,
Hanse Towns, Holl. & Belg.	25,	679,	34,	1,273,	44,	26,
Prtgl., Spain, and Gbrltr.	—	—	155,	—	—	—
	2,893,	1,275,	1,268,	1,514,	988,	403,
Ind. and China (viâ Egypt)	346,	225,	7,	108,	255,	1,973,
Danish West Indies	—	—	—	—	—	—
United States	16,	—	1,	—	—	—
South Africa	48,	—	—	—	—	—
Mauritius	—	—	—	—	—	—
Brazil	185,	16,	13,	23,	121,	27,
All other Countries....	56,	57,	183,	38,	32,	40,
Totals Exported....	3,544,	1,573,	1,472,	1,683,	1,396,	2,443,
Excess of *Imports*	406,	70,	681,	250,	1,030,	—
„ Exports	—	—	—	—	—	250,

REVENUE.—(UNITED KINGDOM.)—31ST MARCH, 1868-67-66-65.

Net Produce in YEARS *and* QUARTERS *ended* 31*st* MARCH, 1868-67-66-65.

[000's omitted.]

QUARTERS, ended 31st March.	1868.	1867.	1868.		Corresponding Quarters.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	5,547,	5,527,	—	20,	5,139,	5,570,
Excise	5,742,	5,535,	—	207,	5,481,	5,342,
Stamps	2,498,	2,554,	56,	—	2,425,	2,501,
Taxes	414,	389,	—	25,	384,	398,
Post Office	1,100,	1,100,	—	—	1,005,	1,005,
	15,301,	15,105,	56,	252,	14,434,	14,816,
Property Tax	3,067,	2,156,	—	911,	1,914,	3,127,
	18,368,	17,261,	56,	1,163,	16,348,	17,943,
Crown Lands	101,	93,	—	8,	90,	84,
Miscellaneous	909,	1,088,	178,	—	1,355,	1,150,
Totals	19,378,	18,442,	234,	1,171,	17,793,	19,177,
			NET INCR. £936,708			

YEARS, ended 31st March.	1868.	1867.	1868.		Corresponding Years.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	22,650,	22,303,	—	347,	21,276,	22,572,
Excise	20,162,	20,670,	508,	—	19,788,	19,558,
Stamps	9,541,	9,420,	—	121,	9,560,	9,530,
Taxes	3,509,	3,468,	—	41,	3,350,	3,292,
Post Office	4,630,	4,470,	—	160,	4,250,	4,100,
	60,492,	60,331,	508,	669,	58,224,	59,052,
Property Tax	6,177,	5,700,	—	477,	6,390,	7,958,
	66,669,	66,031,	508,	1,146,	64,614,	67,010,
Crown Lands	345,	330,	—	15,	320,	310,
Miscellaneous	2,586,	3,073,	487,	—	2,878,	2,993,
Totals	69,600	69,434,	995,	1,161,	67,812,	70,313,
			NET INCR. £165,651			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 31ST MARCH, 1868:—

An Account showing the REVENUE *and other* RECEIPTS *of the* QUARTER *ended* 31*st* MARCH, 1868; *the* APPLICATION *of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

		£
Surplus Balance beyond the Charge of the *Consolidated Fund* for the Quarter ended 31st December, 1867, viz.:—		
Great Britain	—	
Ireland	£899,221	
		899,221
Income received, as shown in Account I		19,378,574
Amount raised on Account of Fortifications, &c., per Act 28th and 29th Victoria, cap. 61		100,000
Amount raised by the issue of Exchequer Bonds, per Act 30th and 31st Victoria, cap. 31		1,000,000
Amount received in repayment of Advances for Public Works, &c.		299,658
Ditto, for New Courts of Justice		40,000
		£21,717,453
Balance, being the Deficiency on 31st March, 1868, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends and other charges payable in the Quarter to 30th June, 1868		2,253,124
		£23,970,577

Paid:—

		£
Deficiency of the Income of the Consolidated Fund in Great Britain in the Quarter to 31st December, 1867, for the Charge of the Consolidated Fund in Great Britain for that Quarter (as shown in preceding account)	£4,088,926	
Less amount of Sinking Fund applied in repayment of Advances to meet the said deficiency	228,957	
		3,859,969
Amount applied out of the Income to *Supply Services*		12,158,312
„ advanced for New Courts of Justice		37,000
„ „ for Greenwich Hospital		100,000
Charge of the *Consolidated Fund* for the Quarter ended 31st March, 1868, viz.:—		
Interest of the Permanent Debt	£5,242,587	
Terminable Debt	1,054,455	
Principal of Exchequer Bills	1,000	
Interest of „	21,568	
„ Advances on Account of Deficiency	2,387	
The Civil List	101,879	
Other Charges on Consolidated Fund	462,185	
Advances for Public Works, &c.	448,344	
		7,329,350
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st March, 1868		490,946
		£23,970,577

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *First Quarter of* 1868.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on a Saturday, 1868.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
Jan. 4	67	10	41	4	25	10
" 11	69	6	41	6	25	5
" 18	71	6	42	1	25	7
" 25	72	4	42	6	25	6
Average for January	70	3	41	10	25	7
Feb. 1	72	6	42	4	25	11
" 8	73	4	42	7	26	–
" 15	73	–	42	5	25	9
" 22	72	11	42	9	26	2
" 29	73	4	42	5	26	9
Average for February	73	–	42	6	26	1
March 7	73	8	43	1	27	2
" 14	73	1	43	3	27	2
" 21	72	5	43	4	26	9
" 28	72	10	43	3	27	5
Average for March	73	–	43	3	27	1
Average for the quarter	72	2	42	6	26	3

RAILWAYS.—PRICES, *January—March;—and* TRAFFIC, *January—March*, 1868.

[Abstract from "Herepath's Journal" and the "Times."]

Total apital Ex- pended lns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic. First 13 Weeks. (000's omitted.)		Traffic pr. Mile pr. Wk. 13 Weeks.		Dividends per Cent. for Half Years.					
		2nd Mar.	1st Feb.	1st Jan.	'68.	'67.	'68.	'67.	'68.	'67.	31 Dec. '67.		30 Jun. '67.		31 Dec. '66.	
£					No.	No.	£	£	£	£	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
56,2	Lond. & N. Westn.	116¾	119¼	114½	1,343	1,331	1,438,	1,422,	84	87	67	6	52	6	67	6
49,2	Great Western	46	46¾	44¼	1,358	1,311	865,	851,	52	54	15	–	12	6	10	–
20,5	" Northern ...	105	108	109	487	423	477,	472,	78	90	75	–	45	–	80	–
28,1	" Eastern	29¼	31½	31½	728	728	432,	401,	46	43	Nil		Nil		Nil	
16,8	Brighton	46½	46	48½	336	319	252,	229,	63	56	"		"		40	–
19,9	South-Eastern	73½	69¾	67	340	330	281,	262,	65	67	40	–	20	–	30	–
16,5	" Western	86	83	77	503	503	275,	258,	49	50	52	6	37	6	45	–
107,2		72	72	70¼	5,095	4,945	4,020,	3,895,	62	64	35	8	23	11	38	11
30,7	Midland	107½	107¼	104	761	701	652,	629,	69	71	55	–	55	–	62	6
22,5	Lancsh. and York.	126½	127	123½	403	403	593,	561,	112	107	65	–	65	–	67	6
15,3	Sheffield and Man.	42	44	45½	246	246	242,	248,	79	79	20	–	10	–	30	–
39,0	North-Eastern	103¼	104½	99	1,242	1,221	853,	832,	57	57	60	–	50	–	60	–
107,5		94¾	95¾	93	2,652	2,571	2,340,	2,270,	79	78	50	–	45	–	55	–
21,2	Caledonian	84	76½	71¾	1,385	1,302	772,	758,	46	48	25	–	52	6	65	–
6,1	Gt. S. & Wn. Irlnd.	97	99	98	420	420	—	—	22	23	45	–	50	–	45	–
142,0	*Gen. aver.*	81⅛	81¾	79½	9,552	9,238	7,132,	6,923,	63	64	40	–	34	7	46	4

Consols.—Money Prices, 2*nd March*, 93 to ⅛.—1*st Feb.*, 93½ to ⅝.—1*st Jan.*, 92 to ⅛.

Exchequer Bills.—2*nd March*, 11*s.* to 15*s.* pm.—1*st Feb.*, 22*s.* to 26*s.* pm.—1*st Jan.*, 23*s.* to s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* FIRST QUARTER (*Jan.—March*) *of* 1868.

[0,000's omitted.]

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.				
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
£ Mlns.	1868.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1867. Per ann.
35,97	Jan. 1	11,01	3,98	20,97	24,24	25 July 2 p. ct.
35,96	„ 8	11,01	3,98	20,96	24,24	
36,00	„ 15	11,01	3,98	21,00	24,32	
36,08	„ 22	11,01	3,98	21,08	23,87	
36,20	„ 29	11,01	3,98	21,20	23,47	
35,64	Feb. 5	11,01	3,98	20,64	23,68	
35,38	„ 12 ..	11,01	3,98	20,38	23,51	
34,98	„ 19	11,01	3,98	19,98	23,38	
35,12	„ 26 ...	11,01	3,98	20,12	23,12	
34,97	Mar. 4	11,01	3,98	19,97	23,59	
34,87	„ 11 ...	11,01	3,98	19,88	23,17	
34,99	„ 18	11,01	3,98	19,99	23,02	
35,10	„ 25	11,01	3,98	20,10	23,34	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1868.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,10	6,31	21,66	,59	Jan. 1	13,27	20,12	11,73	1,09	46,21
14,55	3,23	3,65	23,42	,64	„ 8	14,37	18,30	11,72	1,10	45,49
14,55	3,27	3,22	23,00	,68	„ 15	14,57	17,39	11,68	1,08	44,73
14,55	3,29	3,25	22,65	,66	„ 22	14,27	16,81	12,21	1,12	44,41
14,55	3,30	3,54	22,52	,60	„ 29	14,07	16,62	12,73	1,11	44,53
14,55	3,33	4,11	20,95	,64	Feb. 5	14,07	16,44	11,96	1,11	43,58
14,55	3,33	4,05	21,04	,59	„ 12	13,97	16,50	11,87	1,23	43,57
14,55	3,35	4,05	20,00	,60	„ 19	18,47	16,26	11,60	1,21	42,55
14,55	3,33	4,46	19,81	,55	„ 26	13,27	16,20	12,00	1,23	42,70
14,55	3,61	4,71	19,91	,54	Mar. 4	13,27	17,51	11,38	1,16	43,32
14,55	3,61	4,86	20,33	,50	„ 11	13,27	17,57	11,70	1,30	43,84
14,55	3,62	5,93	19,74	,47	„ 18	13,27	17,78	11,97	1,28	44,30
14,55	3,63	7,29	19,50	,44	„ 25	13,27	19,04	11,76	1,34	45,41

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

e London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* FIRST QUARTER (*January —March*) *of* 1868; *and in* SCOTLAND *and* IRELAND, *at the Four Dates, as under.*

[0,000's omitted.]

ENGLAND AND WALES.					SCOTLAND.				IRELAND.		
ATES.	*London*: Cleared in each Week ended *Wednesday*.*	Private Banks. (Fixed Issues, 4,02).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,76).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,75).	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6,35).
1868.	£	£	£	£	1868.	£	£	£	£	£	£
n. 4	65,15	2,80	2,27	5,07	Jan. 4	1,79	2,94	4,73	3,01	3,13	6,14
,, 11	65,33	2,87	2,35	5,22							
,, 18	67,73	2,91	2,36	5,26							
,, 25	51,16	2,88	2,33	5,21							
b. 1	63,47	2,82	2,31	5,13	Feb. 1	1,71	2,78	4,49	3,00	3,07	6,07
,, 8	76,19	2,79	2,30	5,09							
,, 15	55,97	2,73	2,29	5,03							
,, 22	76,05	2,69	2,29	4,98							
,, 29	54,05	2,71	2,28	4,99	,, 29	1,69	2,68	4,37	3,00	3,08	6,08
rch 7	78,18	2,77	2,29	5,06							
,, 14	60,35	2,75	2,30	5,05							
,, 21	72,84	2,72	2,32	5,04							
,, 28	53,73	2,77	2,38	5,15	Mar. 28	1,66	2,61	4,27	3,09	3,00	6,09

* The Wednesdays *preceding* the Saturdays.

OREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON—*with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Paris.				Hamburg.				Calcutta.				
ATES.	London on Paris. 3 m. d.	Bullion as arbitrated. Agnst. Engd.	For Engd.	Prem. or Dis. on Gold per mille.	London on Hambg. 3 m. d.	Bullion as arbitrated. Agnst. Engd.	For Engd.	New York. 60 d. s.	India Council 60 d.s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. s.	Syd-ney. 30 d. s.	Standard *Silver* in bars in London. pr. oz.
1868.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	*d.*	*d.*	*d.*	pr. ct.	*d.*
n. 4 ..	25·35	—	—	—	13·10	—	—	110	22¾	23½	52	1½ pm.	60⅜
,, 18 ..	,,	—	—	par.	,,	—	—	109⅞	,, ½	,, 1/16	,,	,,	,,
b. 1 ..	·32½	·1	—	,,	·9¾	—	—	,, ¾	,, ¼	22⅞	51¾	,,	,, 7/16
,, 15 ..	·35	·2	—	,,	·10	—	—	,,	,, ½	,, ⅝	,, ¼	,,	,, ⅜
ar. 7 ..	,,	,,	—	,,	,,	—	—	,,	23¼	24	,,	,,	,, ½
,, 21 ..	,,	·1	—	,,	,, ¼	—	—	,, ⅝	,, ¾	23⅞	51	,,	,, ⅞

Vol. XXXI.] [Part III.

JOURNAL OF THE STATISTICAL SOCIETY,

SEPTEMBER, 1868.

STATISTICS *of the* KINGDOM *of* GREECE.

By DEMÉTRIUS BIKÉLAS, ESQ.

[Read before the Statistical Society, May, 1868.]

CONTENTS:

	PAGE
Introduction	265
I.—Territory	267
II.—Division of the Country	268
III.—Population	268
IV.—Movement of the Population	269
V.—Towns	270
VI.—The Army	271
VII.—The Navy	271
VIII.—Public Functionaries	272
IX.— „ Instruction	273
X.—The Press	274
XI.—Weights and Measures	274
XII.—Products of the Soil	275
XIII.—Commerce	280
XIV.—Industry	281
XV.—Commercial and Credit Companies	282
XVI.—Mercantile Navy	282
XVII.—Means of Communication	284
XVIII.—Postal Service and Telegraphy	284
XIX.—Public Debts	285
XX.—Finance	287
XXI.—Conclusion	289
APPENDIX.	
I.—Municipal Revenues of Athens	291
II.—Pursuits of Population	292
III.—Details of Cultivation	292
IV.—Revenues of Forests	293
V.—Breeding of Stock	293
VI.—General Trade	294
VII.—Special „	294
VIII.— „ „	295
IX.—Roads Opened	295
X.—Budget of 1867	296
XI.—Income in 1833 and in 1866	298

Introduction.

THE Hellenic Kingdom offers, I believe, a field of peculiar interest to the student of statistics and of political economy. That little State is the only spot in Christendom where, after a long period of darkness, the work of civilisation had to be undertaken from the very beginning, and by the present generation. There we may study, by way of *vivisection*, so to say, the process of the contest between a mediæval state of things and the tendencies of the present age of progress.

Barely thirty-four years have elapsed since the establishment of the kingdom of Greece; and in speaking of its formation, we should exclude from consideration the recent changes made in the map of Europe by a few happy strokes of the sword and of the pen. We must not forget that Greece attained her independence after a fierce war of nearly ten years' duration, which decimated her population and devastated the whole surface of the land. Nor must we forget that she was emerging from a long and abject slavery, during which her people, bred up in degradation and in ignorance, had necessarily forgotten the way to use those very blessings of independence and of liberty, which in their desperate attempt they had succeeded in obtaining.

It will be the object of this paper to show what has been done by the Greeks in their arduous and self-imposed task of putting their liberated country in the track of European civilisation.

To people accustomed to the spectacle of the present prosperous condition of western Europe, and used to statistics on a large scale, the few paces that a single generation has been able to push Greece forward, and the small scale of her statistics may well appear of small account. But as the first evidence of progress in a persevering and hopeful nation, this instalment may be worth more than its apparent value, and it is this consideration that has encouraged me to occupy the time of this Society with the *Statistics of the Hellenic Kingdom.*

Even before the establishment of the monarchy, as soon as the revolted country was formed into something like a State, under the short-lived presidency of Capodistrias, one of the first cares of the Government was the collection of statistical information, and a public office was early constituted for that purpose. In 1834, a department of public economy, in connection with the ministry of the interior, was organised by royal decree, chiefly for the collection of statistical information.

It would be idle to affirm that the statistics of Greece, which we mainly owe to this department, possess mathematical precision, especially as regards the earlier years of its formation. But it is due to the men who have successively been at the head of that department, and to the economists of Greece to say, that the value of numbers is being more and more appreciated under the Acropolis, and that of late years the official accounts presented to the Chambers, and published by the Government, are attaining an increasing degree of accuracy, while the earlier records, being at any rate fair approximations to the real state of things, offer a pretty safe point of comparison.

It is not out of place to notice here that political economy is becoming one of the favourite studies of the Greeks, and that at the University of Athens, besides the ordinary professor of that science, there are at the present time four professors *agregés*, who have been appointed to give lectures on different branches of the same subject. To the works of the learned professor in ordinary, Mr. J. Soutzos, I am indebted for much of the information which I have attempted to embody in this paper; while my main guide has been Mr. A. Mansolas, now at the head of the department of public economy in Athens, whose most valuable book on the state of Greece,[*] shows him to be an ardent as well as an enlightened lover of the science of statistics. Mr. A. Mansolas has only published as yet the first part of his work. For the information not contained in this already published part, I have had recourse to other works (which will be noticed in the proper places), and mainly to the official tables published at various times by the Government, while in some instances I have obtained unpublished particulars from various branches of the administration. For the earlier years, Mr. Strong's book, "Greece as a Kingdom," published in 1842, has been of much use to me.[†]

I.—*Territory.*

The kingdom of Greece, as at present constituted, is about 216 British miles long, while its greatest breadth (exclusive of the islands) is 186 British miles.

The area of the kingdom is (without the Ionian Islands) about 45,689 kilometres[‡] (about 17,650 British square miles), which were distributed as follows, according to the official tables of 1861:—

	Kilometres.
Land under cultivation	7,436
Arable land not cultivated	11,748
Mountains and pasture lands	18,599
Forests	5,420
Lakes and marshes	833
Rivers, roads, towns, &c.	1,653
	45,689

From this table it will be seen that the proportion of cultivated land is about one-seventh,[§] while about half the remainder may be capable of being cultivated.

The area of the Ionian Islands is about 1,097 British square miles, making a total of about 18,750 British miles for the entire kingdom.

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[*] *Πολιτειογραφικαὶ πληροφορίαι περί Ἑλλάδος ὑπὸ Α. Μανσόλα,* Athens, 1867.

[†] The following statistics mainly apply, as will be seen, to the Kingdom of Greece before the annexation of the Ionian Islands. The aggregate numbers for the entire State are however given in most instances.

[‡] One square kilometre = ·3863 of a square mile.

[§] As cereals are generally sown every alternate year, it is calculated that over 2,500 kilometres remain fallow; thus the extent of land actually under culture per year is still further reduced.

II.—*Division of the Country.*

Up to 1862 the kingdom was divided into ten provinces, governed by nomarchs; these were subdivided into forty-nine districts, administered by eparchs. The nomarchs and eparchs are appointed by, and receive their orders from, the Minister of the Interior. They correspond to the prefects and sub-prefects of France, the whole administration of the country being in fact organised according to the French system of centralisation. Since the annexation of the Ionian Islands, the number of nomarchies has been raised to thirteen, and that of the eparchies to sixty.

Each eparchy is divided into communes administered by mayors, elected by the people by universal suffrage, but confirmed by the king. The communes number about three hundred and fifty in all. The municipal revenues, derived from special taxes, are said to amount to 2,500,000 dr. (about 89,300*l.*) yearly,* for the 280 old communes (the remaining 68 communes belonging to the Ionian Islands). But I have before me no statistics of the revenues and expenditure of the communes.†

III.—*Population.*

Up to 1856 the returns of population were mainly taken with the view of affording a basis for the conscription, and were confined to ascertaining the number and the age of the inhabitants. It was only in 1861 that a more general and detailed census was taken. Owing to the subsequent events, no census has been taken since; it was, however, proposed to have one taken in 1868.

There is no means of ascertaining, with any degree of approximative certainty, what the population of the present kingdom was while under Turkish dominion. Since the establishment of the new State, the first census (1834) gave the number of the inhabitants as being—

In 1834	650,000	
„ '38 the census gave	752,000	
„ '48 „	986,731	
„ '61 „	1,096,810	giving a total in 1861 of 1,325,479.
The population of the Ionian Islands was in 1861	228,669	

The increase from 1838 to 1861, viz., in twenty-three years, has been 45·83 per cent., equal to a yearly rate of increase of very nearly 2 per cent. At this rate of increase the population of the entire kingdom would at present amount to about 1,500,000.

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* "La Turquie et la Grèce, par R." Paris, p. 67.

† An account of the communal revenues of Athens will be found in the Appendix (Table I); this will give some idea of the sources from which such revenues are derived, although the application of municipal taxation is not uniform in all the communes of the kingdom.

The density of the population in 1861 was 24 per 1 square kilometre (62 per British square mile), thus placing Greece above Russia and Sweden only, and next to Portugal and Spain as regards the proportion of the population to the territory. In the Ionian Islands the proportion was 93 per square kilometre (209 per British square mile), thus giving for the entire State an average density of 71 per British square mile.

Of the population of the kingdom in 1861 there were—

In Greece	567,334	males and	529,476	females.
„ the Ionian Islands........	122,403	„	106,226	„
	689,737	„	635,702	„

This disproportion of females is partly explained by their hard-working life in many parts of Greece, and partly by the fact that many of them going abroad as servants, were not included in the census, while, on the other hand, the sailors, though abroad, were not excluded.

From the table* of the respective pursuits of the male population, it results that—

4·27	were	persons of independent means.
13·87	„	industrial population.
49·37	„	cultivators and shepherds.
8·43	„	mercantile population.
18·66	„	liberal vocations and students.
5·40	„	domestic servants.

So that nearly the half of the population is agricultural. In the Ionian Islands at the same period there were—

51,342	agriculturists.
8,365	industrial population.
7,282	commercial „

IV.—*Movement of the Population.*

The total results of the census of 1861 were, marriages, 7,175; births, males 16,775, females 15,630 = 32,405;† deaths 22,969.

The marriages were at the rate of 6·54 per 1,000; the births were at the rate of 29·54 per 1,000. In the Ionian Islands they were in 1864 as 25·42 per 1,000.

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* See Table 2.

† I have before me no statement as to the number of illegitimate births, except for the year 1850, when out of 30,858 births, 298 were illegitimate, equal to 1 per 102·55 or 9·65 per 1,000. *Vide Πανδώρα*, vol. xii, p. 847.

The deaths were at the rate of 21 per 1,000. In the Ionian Islands in 1864 they were as 18·41 per 1,000.*

V.—*Towns.*

The population of the kingdom, numbering in 1861 (without the Ionian Islands) 1,096,810, was divided into 248.949 families (4·62 individuals per family), inhabiting 225,716 buildings (4·86 per building). This population was distributed into 280 administrative communes, seven of which numbered above 10,000 inhabitants; 216 from 2,000 to 10,000; 57 below 2,000. The principal towns were Athens, with a population of about 45,000; Syra, about 20,000; and Patras, 25,000.

At the liberation of the country, there were only nine towns which had partly escaped the total devastation of the rest; the principal of them being Lamia, Vonitza, Nauplia, and Chalkis. All the other towns and villages were in ruins; so that the first necessity of the inhabitants of the new State was to get housed. Since that time ten new cities † have been founded, and twenty-three ‡ old ones have been rebuilt; besides many villages, and the nine towns remaining as above, have been restored.

The following is the summary of this work of wholesale construction:—§

The thirty-three towns built anew, contain a population of about	180,000
The nine old towns, in which the dilapidated houses had to be rebuilt	25,000
Villages grown into small towns	33,000
Say a population of about	238,000

Taking eight persons per house, this would give about 30,000 new houses, at an average cost of 7,000 dr. (about 250*l.*) per house, there would be 210,000,000 dr. (7,500,000*l.*) spent for that purpose.

---

* In 1865 the returns for the whole of the kingdom were—

Marriages	9,224	(6·48) per 1,000.
Births	37,452	(26·30) "
Deaths	26,358	(18·51) "

that is, if we take the population for 1865 at 1,424,000—being at the average yearly increase of 2 per cent. See returns in the 'Αττικὸν Ἡμερολόγιον, 1868, p. 61.

† Patras, Sparta, Megalopolis, Petalidi, Piræus, Hermopolis or Syra, Othonopolis, Pelagia, Adamas, Corinth.

‡ Athens, Thebes, Livadia, Missolonghi, Galaxidi, Argos, Tripolis, Calamæ, &c.

§ *Vide* "Aperçu sur les progrès matériels de la Grèce," par E. Manitaky, Lieut.-Colonel, Directeur des Travaux Publics au Ministère de l'Intérieur, Athens, 1866, p. 6.

No notice is of course taken in this calculation of the numerous public buildings which adorn Athens and the other principal towns, some of which have been built by the Government and the rest by private individuals or by public subscription.

VI.—*The Army.*

When King Otho came to Greece in 1833, he was escorted by 3,500 Bavarian troops, subsequently increased to about 5,000.* These foreign troops were definitively expelled by the revolution of 1843, which gave a constitution to Greece.

The army is recruited by conscription, all Greeks of the age of 18 forming the contingent of every year, the number of recruits being fixed by Parliament. The period of service is six years, three years in active service, and three in the reserve.

In 1841 the effective force of the Greek army was 9,011 officers and men;† in 1867 it was 14,300 officers and men, viz., 768 officers, 2,514 non-commissioned officers, 11,018 men. In the course of 1867, however, owing to the unsatisfactory state of the relations with Turkey, a law was passed for calling out the reserves and increasing the army to a force of above 30,000.

Taking the regular force of 14,300, and the present population as 1,500,000, it cannot be said that Greece keeps an army out of proportion with her population.‡

The cost of the army in 1860 was 6,304,936 dr. (225,175*l.*); in 1867 it was estimated at 7,968,762 dr. (284,600*l.*).

Of late years a law has been passed for the establishment of a national guard, and a large portion of the male population has been armed; but regular drilling only takes place in towns. In Athens the national guard forms a body of about 7,000 men.

VII.—*The Navy.*

Greece owes her independence, in no small degree, to the exploits of her navy during the revolution of 1821; but it was with merchantmen and small craft alone that her sailors contrived to hold their own against fearful odds during that time.

Since then, the royal navy has remained in a crippled state. This is easily accounted for, when we recollect that the entire revenue has never, up to the last years, exceeded 1,000,000*l.* However large a portion of this might have been devoted to naval armaments, it could not have been possible to form with it anything like a respectable navy. The fleet consisted in 1867 of seven steamships and as many sailing vessels, carrying some 110 guns, and manned by 577 officers and men; the naval budget being 1,500,000 dr., or 53,500*l.*

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* Finlay's "Greek Revolution," vol. ii, p. 288.

† Strong's "Greece," p. 261.

‡ The cost of the army is about 3*s.* 9*d.* per head on the population. In Belgium it is 7·46 frs.; in Bavaria 8·46 frs.; in Holland 17·17 frs. See speech of the Belgian War Minister in Belgian Chambers, 29th January, 1868.

In the course of 1867, however, a credit of 4,500,000 dr., or 160,000*l.*, was asked and obtained from the Chamber for the purpose of increasing the navy, and two iron-clads are now being built, one in London and the other at Trieste, for the Greek Government.

VIII.—*Public Functionaries.*

The number of Government employés in 1861 was 3,553, while the municipal functionaries numbered 5,199 in all.

One of the most weighty charges brought against the administration of Greece, is the disproportionate number of her functionaries. A far smaller number of public servants, better paid and less subject to removal, would no doubt have performed the work better. But the evil is not so much in the large number of civil officers, as in the coexistence of an equal number of place-hunters eager to displace and succeed the actual occupants. This has long been felt to be one of the greatest drawbacks of Greece, and there has hardly been a serious ministry, one of whose projected measures has not been the better organisation of the public service. But the difficulty was to get such a measure legalised by the Chambers. Constitutional Government in a country so small as Greece, and based as it is there on universal suffrage, means a Government based on personal influence. As there are no political parties, all the country being liberal, and bent on one purpose, the election of deputies and the majority in the Chamber depend on the personal ties binding in succession the elector to the deputy, and the deputy to the minister. It would, therefore, require a decided expression of public opinion, and a really strong Government to make such a law pass as would affect the position of so many persons occupying places, and the prospects of as many more wishing to occupy them. Even now a bill is before the Chamber for establishing the immovability of public functionaries under certain conditions. Should it pass, it will have the double effect of rendering more efficient the services of those public officers who would feel themselves safe in their places, and of forcing the place-hunters to give themselves to other pursuits more advantageous both to themselves and to the State.

I have dwelt on this subject at some length, as I consider it to be one of vital importance to Greece.

IX.—*Public Instruction.*[*]

Education is being progressively diffused in Greece, one of the constant cares, both of Government and of the people, having always been the extension of public instruction.

In 1830	there were	110	schools,	numbering	9,249	students.
„ '55	„	497	„		41,015	„
„ '60	„	752	„		52,860	„

In 1866, including the Ionian Islands, there were—

1	university, with		1,182	students.
16	gymnasiums „		1,908	„
123	Hellenic schools, with		6,675	„
140	superior „		9,765	„
942	communal schools for boys		44,102	52,583 elementary education.
125	„ girls		8,481	
1,207	public schools with		62,348	67,873 students.†
4	seminaries, with	115	5,525	
3	orphan asylums {80 girls 78 boys}	158		
45	private schools for boys	2,490		
48	„ girls	2,762		
1,307	schools.			
	There were besides a number of private schools for primary education, with about			8,000 pupils.‡
	In all			75,873

Or at the rate of 1 to 20, taking the population as 1,500,000.

The number of students in the university, from 52 in 1837, and 195 in 1845, had risen to 590 in 1855, and 1,098 in 1865, while there were 1,182 in 1866.

From 1837 to 1865 the number of young men who had left the university amounted to 4,631. Of these 2,969 were born in the kingdom, while 1,662 had come chiefly from Turkey, this university being the only institution of the kind in the East. This fact may account for the love borne by Greeks of all classes to that establishment. Scarcely any Greek dies in foreign lands without leaving a bequest to it. The building of the university has been erected by public subscription, at a cost of about 800,000 dr. (28,600*l.*), while its other property amounts to a nearly equal sum. The Government pays 260,000 dr. (9,282*l.*) to the professors, who number sixty-four in all,* thus leaving intact the capital of the university, which may soon become self-supporting.

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[*] *Vide* report of M. Drosos, Minister of Public Instruction, 1866.

[†] Of these 67,873 students, 11,323 were girls.

[‡] These are gradually being supplanted by new public schools.

The total State expenses for education amounted in 1866 to 1,323,050 drs. (47,250*l.*), being a larger proportion of the total income of the country than is devoted to this purpose in most of the States of Europe.†

X.—*The Press.*‡

I have not been able to gather reliable information as to the number of books yearly printed and published in Greece; but I understand that a learned professor of the university is preparing on this subject a work which will show the literary progress of modern Greece since its liberation.

As to the press, we have the detailed list sent to the Universal Exhibition of Paris by M. Gennadios, of Athens. According to it there were in the year 1866 (including the Ionian Islands) seventy-seven newspapers and thirteen periodicals. Of these ninety papers, there were nineteen more than ten years' old, the remainder being of more recent date.§

XI.—*Weights and Measures.*

The metric system of weights and measures has been introduced, under a Greek nomenclature, since 1836, by royal decree. But this measure has not as yet been carried into full effect, and the Turkish system is still in pretty general use, viz.:—

The oke of 400 drachms = 2·8326 lbs.
„ cantar of 44 okes.... = 124½ „
„ kilo as a measure.... = (816 kilos = 100 qrs.)
„ pic πῆχυς................ = 27 inches.

Money.—In 1833 the drachma (8½*d.*) was introduced into Greece, divided into 100 parts; but owing to its containing a greater proportion of silver than the coinage of neighbouring States, it was soon exported, and foreign silver money took its place. A law was, however, passed early in 1867 for introducing the French franc, under the name of *new drachma.* Greece will thus join the monetary convention already in existence between France, Italy, Belgium, Switzerland, and the States of South America, all having in common one monetary system.

The relation of gold to silver is 1—15½.

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* Some of them being professors *agregés*, receive no payment.

† "La Turquie et la Grèce," p. 75.

‡ The number of printing-houses throughout the kingdom in 1867 was seventy-five, see Ἀττικὸν Ἡμερολόγιον.

§ *Vide* "Indépendance Hellénique," No. 72.

XII.—*Products of the Soil.*

Agriculture.—" Greece might easily hold five millions of inhabi-" tants and furnish food for them all."[*] It has already been noticed that about one-half of the population is devoted to, and gets its living by, the cultivation of nearly one-seventh of the surface of the kingdom. But the result is not in relation to what should have been expected under similiar proportions in the more favoured parts of the west. Agriculture is still in its infancy there; the causes of its tardy progress being manifold.

In the first place it must once more be recorded, that all had to be done afresh in Greece after the revolution. An impoverished and ignorant population, having to work its fields with no capital, could not be expected to acquire soon the knowledge and the means to render its labour as productive as in Western Europe. No improved implements of husbandry have as yet been introduced into the country to any considerable extent;[†] while drainage or a scientific rotation of the crops are hardly known. All this will come, but not until such changes are effected as to encourage the tiller of the land, insuring a reward to an increased activity on his part. Now he is labouring under the immense disadvantage of having to pay the tithe, the most obnoxious of taxes, the objections to which are greatly increased by the system of farming it to private contractors. The tithe is the tenth of the gross product paid in kind[‡] Many ministries have attempted to remedy this evil; M. Coumoundouros among others, the late premier, submitted to the Chamber in 1860 (being then Minister of the Interior), an elaborate bill for replacing the tithe by a more equitable tax; but the disturbances, which at that time began to forebode the revolution of 1862, put a stop to such legislative labours.[§] All writers and thinkers in Greece are intent on the abolition of this tax. Happily there are other examples of its successful abolition in other cases, as vineyards, &c., which are now taxed in money upon declarations of the producer; such alterations having, in all instances, proved most advantageous both to the public exchequer and to the moral standing of the taxpayer.

Another cause of the slow progress of agriculture may be the minute partition of land among small landowners and peasants, there being very few large estates, and scarcely any cultivation on a large scale. There are very few instances of Greeks belonging to the better classes living in the country as agriculturists. This may be ascribed partly to the want of an extensive system of roads, and partly to the feeling of insecurity created by the recurrence from time to time of brigandage.

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[*] "Strong," p. 164.

[†] Of late years the manufacture of such implements is taking some development at Syra and the Piræus.

[‡] See "McCulloch's Account of the British Empire," vol. i, p. 269, on tithes, and his reference to Dr. Paley's sentence: "of all institutions adverse to cultivation "and improvement, none is so noxious as that of tithes."

[§] M. Sotiropoulos, one of the best economists of Greece, has also presented last year to the Chamber a similar bill, but the dissolution of the Chambers prevented its being discussed; he has published the bill, preceded by a clever pamphlet on the subject.

Brigandage is unknown in the islands, and had been forgotten in the Peloponnesus up to 1862, when it again reared its head after the disorganisation following upon the last revolution. But thanks to the exertions of Government and of the peasantry, that part of Greece has again been liberated—let us hope for ever—from that plague. The same cannot be said of Continental Greece. There cultivation is more spare; the country more mountainous, and the inhabitants the roughest of Greece; while the defective line of frontier offers to the banditti an easy refuge, and sometimes a welcome asylum, according to the periodical complaints of the Greek Government for the non-execution on the part of Turkey of the treaties specially intended to ensure the efficient guard of the frontier.

It would be unjust to infer from the foregoing, that the interests of agriculture have been neglected by the Government and legislature of Greece. There has been, on the contrary, no session without some measure or other being passed for the protection and improvement of agriculture; but the want of unity in all such measures, and the absence of a comprehensive system embracing all those partial attempts at legislation, have diminished their general effect.

Besides such legislative measures, an agricultural school and model farm have been formed since 1834; a central establishment for the introduction of trees and seeds has also been founded in Athens; and in 1852 agricultural chambers were instituted, to meet twice a-year in the chief town of each nomarchy for the purpose of discussing the various local wants, and thus suggesting to the Government the necessary measures for a wider legislation.*

Cereal Crops.—In 1860 the extent of land under tillage was 2,287,645 stremmata; in 1864 it had risen to 2,831,782 str. The 2,287,645 stremmata = 565,048 English acres,† yielded on the whole in 1860, 9,512,993 kilos = 1,165,807 qrs., or at the rate of less than 14 hectolitres per hectare, equal a fraction over 2 qrs. per acre. As in other European countries, the average produce is 23 to 25 hectolitres per hectare = 25½ to 28 bushels per acre,[*] it is evident that with improved agriculture the produce of the crops may be considerably increased. Of the above, 3,382,303 kilos = 414,560 qrs., was wheat. The average yearly produce of wheat in the ten years 1848-58 was 4,184,420 kilos (512,860 qrs.). The produce not being equal to the consumption, foreign supplies are imported, mainly from Turkey and Russia. The average of imports from 1851 to 1864, was 991,134 kilos per year = 121,500 qrs., so, that the average quantity of wheat consumed is about 634,000 qrs., or about five bushels per head; the average price of wheat for twenty-three years, 1843-66, being equal to 37*s.* 6*d.* per quarter.

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* M. Sotiropoulos computes the total value of the yearly produce of Greek cultivation, including the breeding of stock, at 4,000,000*l.*, or equal to about 7*s.* per acre on the whole territory of the country, which is greatly below the agricultural proceeds of other countries.

† 10 stremmata = 1 hectare = 2·47 acres.

Since 1843 a fixed duty has been imposed on the importation of wheat, the sliding scale being abolished.

The produce of maize, barley, and other grain, was computed in 1860 at 6,130,690 kilos (751,300 qrs.), or about 5½ bushels per inhabitant.

Currants.—In 1830 it was calculated that the total production of currants amounted to 5,000,000 lbs.;[†] it had risen to 79,201,668 lbs. in 1860, valued at 14,106,954 dr. (503,800*l.*), while in 1866 it was (including the Ionian Islands) 125,573,717 lbs.

The tax is 10·50 dr. per 1,000 Venetian pounds. In the budget of 1866 it was estimated at 800,000 dr. (28,600*l.*), and in that of 1867 at 1,350,000 dr. (48,200*l.*).

Vineyards.—From about 25,000 stremmata in 1830, the culture of the vine now covers from 450,000 to 500,000 stremmata, producing about 1,850,000 barrels of wine, of the value of about 11,000,000 dr. (393,000*l.*). Of late years some improvement and progress has been made in the manufacture of wine, a considerable exportation of which is made principally to Turkey and Russia. Some of it is now being imported into this country.

The exports amounted in—

	Okes.		Drachmas.		£
1858 to	1,867,680	valued at	831,749	=	29,705
'60 „	4,238,385	„	1,233,180	=	44,042
'64 „	5,085,127	„	1,204,984	=	43,035

The tax varies from 50 lepta to 3·50 dr. per stremma (4¼*d.* to 2*s.* 6*d.*). In 1862 it yielded 805,000 drs. (28,750*l.*). In 1865 it had fallen to 672,000 dr. (24,000*l.*), owing to the vine disease.

Spirits of wine are also manufactured to some extent in Greece.

Olive Oils.—The number of olive trees was computed in 1834 at

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[*] See report of the Italian Minister of Agriculture, quoted in "Journal of the "Society of Arts," No. 184.

[†] Venetian pounds, 950 = 1,000 English pounds.

2,300,000; in 1860 there were about 7,500,000 trees, producing 5,812,315 okes of oil. In 1862 there were exported 1,209,732 okes, valued at 1,503,807 dr. (53,700*l.*). The tax is 7 per cent. on the oil. It had yielded in 1848 334,594 dr. (12,000*l.*); in 1853 522,521 dr. (18,650*l.*); in the budget of 1866 it was estimated at 700,000 dr. (25,000*l.*).

Silk.—In 1834 there were about 380,000 mulberry trees; in 1860 there were about 1,500,000. Silk was one of the most important items of Greek exports up to 1859; since then it has fallen off, owing to the silkworm blight. In the year 1850 there were exported 11,805 okes, valued at 515,605 drs. (18,500*l.*); in 1864 there were exported 2,919 okes, valued at 207,686 dr. (7,400*l.*). The export of cocoons from 1,493,934 okes in 1857, had fallen to 32,263 okes in 1864.

The tax on cocoons and silk was only put down for 60,000 dr. (2,150*l.*) in the budget of 1867.

Tobacco.—The culture of tobacco is free, the produce being subject to a tax of from 2 to 6 dr. (1*s.* 3*d.* to 4*s.* 3*d.*) per stremma, according to the quality of the land. In 1860 the yield was 1,069,835 okes, of which 851,561 were exported, valued at 1,100,016 dr. (39,300*l.*).

Cotton.—The following table will show the development of this culture since 1863:—

Year.	Stremmata.	Exports in Cantars.	Pounds Weight.	Valued at	
				Drachmas.	£
1860	22,062	183	22,783	12,318	440
'63	77,158	6,235	776,267	764,800	27,315
'64	210,413	10,020	1,247,490	1,375,297	49,120

This has been going on in the same way since 1864, but it is feared that the fall in the prices of cotton will check the ardour of Greek growers.

Cotton pays an export duty of 9 dr. on clean, and 5 dr. on raw, per cantar (⅝*d.* and ⅜*d.* per lb.). This was estimated to yield 150,000 dr. (5,360*l.*) in 1866, and in 1867 100,000 dr. (3,570*l.*).*

Timber.—In spite of the destruction which the woods of Greece have been subject to since its classic days, there are still large tracts of forest land. With a proper administration of these forests (which are national property), and with the opening of roads, they might become an important source of revenue. The Government is now spending about 100,000 dr. (3,570*l.*) for their preservation, and derives from them about 375,000 dr. (13,400*l.*). In the budget of 1867 this source of revenue was estimated to yield 470,952 dr. (16,820*l.*) as per Table IV, Appendix.

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* See Table III.

*Breeding of Stock.**—The proportion of sheep and goats is larger in Greece, as per area and population, than in other countries. Butter and cheese are made almost exclusively of their milk. The yearly income per head of sheep and goats is estimated at about 8 dr. (5*s.* 8*d.*), and they are taxed at 35 lepta (3*d.*) per head. The value of wool exported yearly averages about 5,000 cantars, of the value of about 200,000 dr. (7,150*l.*).

The oxen employed in husbandry are not subject to any tax. They were 168,927 in 1860. The number of cattle subject to taxation was, in the same year, 57,910.

Mines and Minerals.—The mineral riches of Greece are considerable, but very few of her mines are worked as yet. The following chapter of the budget for 1867, is a summary of that branch of the national resources. The revenue from mines was as follows:—

	Drachmas.	£
From the sale of emery from Naxos	330,000	11,800
„ gypsum	8,000	285
„ millstones	40,000	1,425
(The above are national property, and are worked by Government.)		
Tax on sulphur mines of Melos	5,000	185
(These have only been worked for the last few years.)		
Tax on the *scoriæ* of Laurion*	250,000	8,930
	633,000	22,625
From other minerals	8,000	285
„ saltworks (which are Government monopoly)	750,000	26,790
	1,391,000	49,700

* This item is derived from the works which have lately been established near Sunium, by a French company at first, and then by other Greek companies, for the resmelting of the refuse of the ancient mines of Laurion. The whole of these *scoriæ*, or refuse, is roughly guessed to be able to yield about 120,000 tons of lead. The working of that mineral is infusing new life in the long deserted regions of Sunium, where steam-engines, and new dwellings growing into villages, show to what degree the surface of Greece may be changed by industry.

The marbles of Greece, always deserving their old fame, are still worked in many parts of the country.

The law of mines is based on French and Belgian legislation, the ownership of the surface not implying that of the mine under it.

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* See Table V.

XIII.—*Commerce.**

Greek commerce has taken a considerable development from the wars of the French revolution. At that time the grain trade of the Mediterranean was entirely in the hands of Greek merchants and shipowners. The wealth then amassed by them served to the regeneration of the country. Greek merchants established those numerous schools, which gave the first impulse to the intellectual and moral awakening of their country. The *Philiké Hetairia*, which prepared and organised the revolution, was principally an association of merchants, and it is with the capital of the rich shipowners of the islands that the fleets of Greece were, during the revolution, equipped and maintained.

Since the revolution, the forced expatriation of some of the best families from Turkey, whence they escaped for their very lives, and their dispersion throughout the commercial towns of Europe, gave a new stimulus to Greek enterprise; but the commerce created by these circumstances does not, of course, represent the commerce of the Hellenic kingdom.

In Greece, the Government has at all times paid much attention to the interests of commerce. Ever since 1835 the French code had been introduced, and commercial legislation since then has always been based on the sound principles of free trade. Currants, figs, and valonia are now submitted to an export duty of 5 per cent. On imports the duty is getting more and more simplified, and does in no instance exceed a maximum of 10 per cent. *ad valorem* on goods in common use, and of 1 per cent. on objects of luxury.

The foreign trade of Greece is divided into *general* and *special*. The tables for the former include all the items either in bond and transit, or for home consumption. Those for the special trade include goods imported for home consumption, and the exports of home-grown products and of Greek industry.

In the seven years from 1858 to 1864, there has been an increase on the general trade of Greece of 40 per cent. on imports, and of 10 per cent. on exports.

	Drachmas.	£
The total imports in 1864 were	61,899,765	2,210,000
" exports "	31,388,640	1,120,000
Total	93,288,405	3,330,000

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* K. Μελᾶ *Εμπορικὸν 'Εγχειρίδιον*, p. 145. A. Mansolas, p. 129 and following.

About one-third of this represents the trade with England; next in order come Turkey, France, Austria, &c.*

The imports and exports of special trade amounted in 1851 to 39,670,904 dr. (1,416,820*l.*); in 1864 they had reached to 80,187,961 dr. (2,863,850*l.*), being an increase of 50 per cent.

The principal articles of importation are cotton goods and grain, hides, sugar, timber, &c. In exports, currants represent nearly the half of the whole, next come silk and cocoons, wines and spirits, leather, figs, &c.†

The custom house receipts from 3,748,411 dr. (133,900*l.*) in 1851, had risen in 1860 to 4,785,211 dr. (171,000*l.*). In 1862, owing to the revolution, they had fallen to 4,056,232 dr. (144,600*l.*).

In the budget of 1866 the custom house receipts for the whole of the kingdom (including the Ionian Islands) were put down for the sum of 6,500,000 dr. (232,143*l.*), and in that of 1867 for 9,670,000 dr. (345,357*l.*).‡

In the Ionian Islands the value of exports in 1862 was 1,108,520*l.*, that of imports 1,272,800*l.*, in all 2,381,320*l.*

XIV.—*Industry.*

Industry is still in its infancy in Greece. Its principal objects are silk weaving, tanning, soap making, ironworks, &c. Cotton spinning, and weaving in general, are carried on in a primitive way in the homes of the peasantry for their own use. Some spinning works have, however, been established of late, moved by water-power. Tanning has undergone considerable development in Syra. In 1864 the exports of leather amounted to the declared value of 1,215,429 dr. (43,400*l.*).§

The most important industry of Greece is ship building, as may be inferred from the subsequent account of the commercial navy.

Exhibitions of art and industry have been introduced, the first one having taken place in Athens in 1859. The second one was to have taken place in 1863, but owing to the disturbed state of the country since 1862, it has been delayed. Greece has also taken an humble part in the international exhibitions of Europe. In 1851 the number of Greek exhibitors in London, was 36; in 1855, in

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* See Table VI.

† See Tables VII and VIII.

‡ The tables from 1864 not having been published as yet, I am not enabled to give a detailed account of the increase in trade which the above figures manifest.

§ According to the Αττικὸν Ἡμερολόγιον for 1868, there were in Greece seven silk weaving manufactories, six cotton spinning manufactories, sixteen tanneries, five steam mills, thirty candle manufactories, and one iron foundry in the Piræus employing 290 hands, besides other establishments on a smaller scale in different branches of industry.

Paris, 131; in 1862, in London, 295; and in the recent exhibition of Paris, 305.*

XV.—*Commercial and Credit Companies.*

The number of joint stock companies in Greece (not including the Ionian Islands) does not exceed twenty-nine or thirty. The principal establishment of this kind is the National Bank of Greece, established since 1841, with a privilege renewed up to 1891. The seat of the bank is in Athens, and it has fourteen branches in the principal towns of the kingdom. Its present subscribed and paid up capital is 15,000,000 dr. (540,000*l.*), with a reserve fund of nearly 6,000,000 dr. (215,000*l.*). This bank is authorised by law to issue notes for a sum not exceeding the amount of bullion and of its capital and reserve put together, with the obligation to keep bullion for one-third at least of its liabilities in accounts current on call and in notes issued. The usual rate of its dividends is at the rate of 9 per cent. per annum.†

There are twenty-seven joint stock marine insurance companies, with a subscribed capital of 19,956,000 dr. (714,000*l.*), and a fire insurance company with a capital of 3,000,000 dr. (107,150*l.*), and at Patras there is a wine manufactory with a capital of 2,000,000 dr. (71,400*l.*).

Of the National Steam Navigation Company, with a capital of 5,000,000 dr. (180,000*l.*), mention will be made under the head of the commercial navy.

Thus there is an aggregate sum of 45,000,000 dr. (about 1,610,000*l.*) representing joint-stock enterprise.

Some companies have also been formed of late for working the scoriæ at Laurion, while another important company is in process of formation for the drainage of the Lake Copaïs.

XVI.—*Mercantile Navy.*

Besides the coasting trade, which is almost exclusively the trade of the country, the navy of Greece finds employment in carrying the produce of the Black Sea ports westwards.

The extensive coast of Greece, her central position in the Mediterranean, and the natural aptitude of her inhabitants for the sea, explain the development of her mercantile navy.

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* Steam engines are gradually being introduced. In 1866 there were twenty-two manufactories employing steam power.

† The Ionian Bank of Corfu has been established since 1840, with a capital of 150,000*l.*

		Tons.
In 1834 the number of vessels carrying the Greek flag was....	2,745	—
" '38 " "	3,269	85,502
" '58 " "	3,920	268,600
" '64 " "	4,528	280,342
" '66* " "	5,156	297,424

* Including the Ionian Islands.

That is an average tonnage of fifty-eight tons per vessel. The crews in 1864 numbered 24,949 men.

The principal port, and the greatest centre of commercial and industrial movement in the country is Syra.

The number of Greek ships which entered and cleared to and from foreign ports, were in 1864—

	Ships.	Tons.
Entered..................................	10,829	960,683
Cleared	9,352	1,000,215
Coasting Trade—		
Entered..................................	56,354	2,186,553
Cleared	47,780	1,880,891
Total tonnage in 1864	—	6,028,342

The coasting trade of Greece has of late years been greatly benefited by the establishment of the Steam Navigation Company, possessing a small fleet of eleven or twelve steamers, varying from 230 to 748 tons, and from 70 to 175 horse-power. This company has erected at Syra, at the cost of about 12,000*l.*, works for the manufactory of steam-engines, pumps, and other iron implements, as well as for the repairs of their steamers.

It would not be out of place to mention here, that in many ports of Greece, important works have been undertaken by national outlay or by self-imposed municipal taxation, since the establishment of the kingdom.* One of the most important works of the kind has been the widening of the Straits of Eubœa, at a cost of about 35,000*l.*

Some thirty lighthouses (some of them of the first order) have also been erected at the most difficult spots of the Greek seas, the cost of which to the Government is about 2,300*l.* per year.

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* See "Manitaky," p. 14, for the works done in the ports of Piræus, Spezzia, Nauplia, Coron, Kyparissia, Catacolon, Cyllene, Patras, Corinth, Syra, Andros, Tenos, Naxos, Thera, and Chalkis.

XVII.—*Means of Communication.*

One of the greatest drawbacks of Greece is the want of roads. This has always been a subject of the deliberations of municipal councils, and the central Government has often come in aid of the communes. In every year's budget a certain sum has been put aside for this object. In 1856 that sum was 46,369 dr. (1,700*l.*); in 1862 it had risen to 408,769 dr. (14,500*l.*). The events following upon the revolution of 1862, put a stop to the increasing rate of the sums thus applied to the opening of roads. In 1865 it was again 367,462 dr. (13,125*l.*), but in the course of last year an important measure was sanctioned by the legislature, in order to create a special fund for this purpose; the basis of the new law is that every Greek aged 18, is liable to devote to road making a minimum of three days' labour per year (up to a maximum of twelve days), or its equivalent in money. Thus the means are ensured for completing the network of roads, already planned, for connecting the principal points of the kingdom together and with the sea coast.

From 1833 to 1866, there have been opened only 380 kilometres (236 British miles) of roads.*

Railroads have not yet been established in Greece; the scarcity of the population, the mountainous nature of the country, and the want of capital throwing great difficulties in the way of such works. A small line is however, being constructed now between Athens and the Piræus.

XVIII.—*Postal Service and Telegraphy.*

Measures for organising the postal communication, were taken as early as 1828 by the Government of Capodistrias. In 1834 the Bavarian regency regulated the communication with Foreign States. The progress of the postal institution will best be seen by the following numbers:—

In 1829 there were 13 post offices throughout Greece.
„ '50 „ 79 „
„ '61 „ 103 { 92 in Greece.
11 in Turkish towns.

The number of letters passed through the post office, were 323,300 in 1840; 735,708 in 1860; and over 1,300,000 in 1861.†

Postage stamps were introduced in 1861, and their introduction has been followed there, as in other countries, by an increased activity in the post office. But we have no official data published since 1862.

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* See Table IX.

† "Official Reports of Postal Service, 1829-61."

	Drachmas.	£		Drachmas.	£
In 1833 the income was....	8,832	815	the expenses....	9,261	830
„ '40 „	211,078	7,895	„	253,595	9,067
„ '60 „	322,741	11,526	„	343,800	12,278

It is only since the introduction of postage stamps that the post office began to be a source of profit to the Government.* In the budget of 1867, the expenses were estimated at 419,377 dr. (14,975*l.*), and the income at 650,000 dr. (23,215*l.*).

The telegraph is worked by Government like the post office; there are 1,114 kilometres (693 British miles) of telegraph uniting the principal points of the mainland, and connecting Greece, by way of Corfu and of Turkey, with the telegraphic system of Europe.

The telegraph is worked at a yearly loss of from 4,250*l.* to 5,400*l.* to the Government.

XIX—*Public Debts.*†

The claims against Greece for debts, both foreign and internal, amount to a total of nearly 14,000,000*l.* The blame she is lying under for her inability, or unwillingness, to meet her foreign obligations, may be mitigated when we take into consideration how these debts were incurred, and their disproportion to the resources of the State.

In 1824-25 the Greeks were still fighting a desperate war against the Turks, without means and with no organisation. In that extremity they made an appeal to their friends in Europe for pecuniary assistance. Their appeal was generously responded to, and two successive loans were negotiated in London, the first one for 800,000*l.*, at 59 per cent., and the second for 2,000,000*l.*, at 55½ per cent., both at 5 per cent. per annum. Out of the proceeds of the latter, 250,000*l.* of the former loan were cancelled, so that the outstanding stock of both these loans amounted to 2,550,000*l.* Deducting the commissions, and interest and drawings of two years kept in advance, these loans yielded a net sum of 924,000*l.*, which served for the purchase of two frigates, and for the most pressing wants of the war. The arrears of interests accumulated have added a sum of about 5,000,000*l.* to this debt, which amounted in all in 1867 to 7,384,750*l.*‡

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* The inland postage is uniform, viz. 20 lepta = 1¾*d.* per letter.

† *Vide Σούτζου Δοκίμιον οἰκονομικῶν μεταῤῥυθμίσεων*, p. 161; also report of M. Yanopulo, Minister of Finance, 1860, and Mr. E. Strickland's pamphlet, "Greece: its Condition, Prospects, and Resources," London, 1863.

‡ Statement of Mr. E. Haslewood, Chairman of the Committee of Greek Bondholders.

The Government of King Otho never recognised this loan, on the plea that it was made by, and for the whole of, the Greeks then in insurrection, and not for that portion of them forming the subsequently established Greek Kingdom. But a public opinion was gradually gaining ground among the Greeks that all such specious reasons for denying sole liability ought to be left aside, for the recognition of a loan which, however onerous, did good service at the time, and that Greece ought, even at a sacrifice of what she might consider fair reasons of non-liability, to redeem her character as a paying State. Negotiations to that effect were opened immediately after the overthrow of King Otho, and at last that long-pending affair is being brought to a conclusion. A convention has been lately passed between the representatives of the Greek Government in London and the bondholders, and submitted to the Chamber in Athens, according to the terms of which those two loans and their accumulated interests, amounting in all (in 1868) to about 7,500,000*l.*, will be converted into a new loan of 1,000,000*l.*, bearing 5 per cent. interest per annum, the Government being bound to pay that 5 per cent., with ½ per cent. per annum for five years, and thereafter 2 per cent. or 20,000*l.* per annum sinking fund, till the total extinction of the debt.

This is the history of the first Greek loans. Unfortunately for the new State, they were soon followed by another one of 60,000,000 frs. (2,400,000*l.*). This loan was one of the conditions upon which the crown of Greece was conferred upon King Otho, and it was guaranteed by the three Protecting Powers. Out of this loan (negotiated at 94 per cent.) only 464,000*l.* were remitted to Greece, the remainder having gone in interest kept in advance, in commissions and in about 450,000*l.*, which Greece was made to pay to Turkey for the cession of a province. The arrears of interest will bring the total amount in 1871, when this loan will be extinguished, to the sum of 108,336,000 dr. (3,870,000*l.*). By a convention with the three Powers, Greece is bound to pay a yearly sum of about 36,000*l.* up to 1870, towards the extinction of the amounts due.

It is not to be wondered at if Greece, in the state of destitution she was, found it impossible to meet three such loans of 4,950,000*l.*, an exceedingly small part of which, if any, was left to be employed for internal improvements. The accumulated interests would have made them even now unbearable to Greece, as they would be out of proportion with her resources.

The following is a summary statement of the whole debts of Greece:—

			£
Old loans, with arrears of interests			7,500,000
Loan guaranteed by the three Powers, with interests			3,870,000
Debt to Bavaria and to the late King Otho, about			250,000
Foreign debt			11,620,000
		£	
Old internal debt*	29,200,000 dr.	= 1,040,000	
Internal debt since 1862 (including the Ionian debt of about 430,000*l.*)	†34,300,000 „	= 1,280,000	
Internal debt			2,270,000
Total			13,890,000

On the confirmation by the Chamber of the convention entered into with the old Greek bondholders, the above sum will be reduced by 6,500,000*l.* As to the debt to the three Powers, time will show what course they will pursue, and what final arrangements will be made. Anyhow, on the above convention being confirmed, the burden on the Greek exchequer for interest on public debt will, for the next few years, stand thus:—

	£
For the converted old loans	55,000
Instalment to the three Powers on the guaranteed loan....	36,000
For the internal loans, about	70,000
About	161,000

which cannot be considered a disproportionate sum for a State of 1,500,000 inhabitants and with a revenue of about 1,000,000*l.*

So the Government of Greece might begin a new financial era with a fair chance of keeping its head above water.

XX.—*Finance.*

After the preceding statement of the public debts of Greece, it is evident that her finances could never have been in a flourishing state. King Otho's Government, by ignoring the foreign debt, had managed to balance the income with the expenditure; and between the years 1854 and 1861, when Greece enjoyed an interval of repose, his Government was enabled to apply considerable sums to internal improvements, or in the armaments of the State. But at his overthrow, the interruption of the regular administration of the country made terrible havoc in the financial department. The following paragraph from the statement of the Minister of Finance, in laying before the Chamber the budget of 1867, will explain better than any words of mine the state of the public accounts:—

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* The old internal debt represents almost exclusively the claims of the Greek shipowners and others who upheld the war during the revolution at their own cost, and which claims have not as yet been settled.

† Including the already subscribed portion of the national loan of 1867.

"The state of our finances is such," says M. Kehaya, "that he is blind who does not see the imminent necessity of striving to attain to an effective balance between our income and expenditure. It is not my purpose to examine now our financial history since the establishment of the kingdom, but I cannot help noticing that from 1833 to 1865, all our budgets, instead of a surplus, show in reality a deficiency; up to 1857 there appears, it is true, in the budgets some surplus, but in none of these accounts is included the sum of 3,848,874 dr. (137,000*l.*) due to the three Powers for interest on the loan guaranteed by them. Had we paid that sum yearly, all our budgets would have shown a deficit. But leaving that aside, our budgets up to 1860, taken as a whole, do not leave any surplus at all, up to that time. I will, therefore, confine myself to expose the results of our budgets subsequent to that date.

	Drachmas.	£
In 1861 there was a deficit of	2,591,757	92,500
" '62 (the year of the revolution)	5,772,967	206,000
" '63	1,261,742	45,050
" '64	583,581	20,850
" '65	3,058,657	109,200
Total	13,268,704	473,600

"This deficit has been covered:

"1. By the exchequer bonds in circulation of about 5,000,000 dr. (178,500*l.*).

"2. By a loan contracted in 1866 with the National Bank for 1,500,000 dr. (53,500*l.*); and by an advance in account current by the bank for another 1,500,000 dr. (53,500*l.*); and lastly, by the use of different credits, deposits, &c., which are now due by the State."*

This is not a very cheerful state of things no doubt. But when ministers have the courage and the sincerity to expose the evil in all its nakedness before the Chamber, we may reasonably expect that improvement is near at hand. Unfortunately the unsatisfactory state of the relations between Greece and Turkey, in consequence of the events in Crete, have interfered sadly with the endeavours of the ministry to bring about in 1867 that equilibrium of income and expenditure which appears to be such a *desideratum*. To meet the extraordinary expenses of arming the country, a national loan of 1,000,000*l.* was opened in the course of last year, of which about 350,000*l.* had been subscribed in 1867.

	Drachmas.	£
The budget for 1867 was estimated to yield	32,292,335	1,153,295
" ordinary expenditure was estimated at	28,158,698	1,005,675
Showing a surplus of †	4,133,637	147,620

† See for summary of the budget, Table X.

A fair idea of the progress of the resources of Greece and of their probable development in future, can be gathered by the juxta-

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[*] See official statement of the budget of 1867.

position of her income in 1833 and in 1866, as we find it in the valuable work of Mr. Manitaky.*

It will be noticed that the last item in the Greek budgets is an amount due by public debtors. This represents one of the shortcomings of the financial administration of the country. From the establishment of the kingdom up to 1862, the amount of taxes in arrear due to the Government constitute the important sum of 62,327,782 dr. (2,226,000*l.*). I have not been able to ascertain the amount added to this since 1862, but in all probability it must have increased and not diminished. It is more than doubtful whether any considerable portion of these arrears will ever be recovered by the Government, as they owe their origin either to the misfortune of the taxpayer, or to abuse; in either case, the Government would find it much more difficult to cash these taxes now, than when they were falling due. A small sum is every year cashed and entered in the budget, but too inconsiderable in proportion to the whole. The best thing would probably be for the State to follow Solon's example of the Σεισάχθεια, and cancel these debts; a new element of order would thus be ensured; as Greece presents now the solitary instance of a State, where a large portion of the people, instead of being the creditors of the Government by holding stock, are its debtors.

Such is the financial position of Greece; not a satisfactory one no doubt; but with a better administration of the national resources, and with well considered economy in the expenditure, a great deal can be effected towards placing the budget on a sound basis. Greece possesses many resources, and is in a progressive state. But in order to increase the rate of her progress, and to develop and utilise her resources, it would be necessary to ensure the removal of such external causes as interfere with the work of her internal improvement.

XXI.—*Conclusion.*

From the foregoing statements it results that in thirty-five years of self-government the population of the Hellenic Kingdom has been doubled, while her revenues have increased nearly five-fold; that her towns and villages have been rebuilt and new ones founded; that her fields have been cultivated to a considerable extent, and her seas covered with shipping; that public education has attained a notable development, and that, in short, her people have not remained idle. With a revenue of from 500,000*l.* to 1,000,000*l.* a-year, her Government has managed, besides keeping up an army and navy, with a civil list and all the outlay of administration, to establish schools, to open ports, and erect lighthouses, to make some roads, and, generally speaking, to deserve a place among the civilised Governments of Christendom, in spite of all its shortcomings. That its shortcomings are not few, has been pointed out in many instances in the preceding pages. But under the circumstances which saw this small State begin its political existence, the question is whether more could be fairly expected from a first generation of freemen.

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* See Table XI.

It is true that the friends of Greece at the time of her emancipation did, in their enthusiasm, anticipate a far brighter future for her, to be realised in a short time, basing their too sanguine expectations upon the example of North America. But in reality there was no point of comparison whatever between the two lands.

The Americans, springing up from, and connected with, an European nation in the prime of its power, and in the height of civilisation, had all the advantages without many of the drawbacks of that power and of that civilisation. They had to meet no moral or material obstacles in their work of reclaiming the immense territory which attracted and rewarded their enlightened energy, and emigration gave a rapid expansion to their formation into a glorious community.

The Greeks emerging from ages of serfdom, had none of the benefits of civilisation; they had no political, or social, or intellectual education to boast of; they had no laws, no aristocracy to lead them in the work of their regeneration; and after they had achieved, by dint of desperate efforts, the work of independence, they had to go through a series of revolutions before settling down into an organised body politic; while the belief that their national unity is not yet complete, has tended, and may for long tend, to disturb the work of their internal development.

All these things must be taken into account in forming a fair judgment of the progress of that country, and in order to appreciate the result of her statistics, and to draw from their progressive relation an inference of future progress. Should Greece enjoy under her present dynasty a period of internal stability, as there is every reason to hope, and of external peace, which may be more doubtful, that progress will no doubt be equal to the expectations of her best friends; and when another generation has passed away, some abler contributor to the works of this Society will, no doubt, be enabled to lay before it, in numbers far more important than these, the Statistics of the Hellenic Kingdom.

APPENDIX.

I.—*Municipal Income of the City of Athens in* 1867.

		Drachmas.	£
1. From Municipal Property—			
Rent of stalls in market	70,000		
„ occasional stalls	4,800		
„ fishmarket	4,000		
Rates of water for irrigation	12,175		
„ domestic use, at 80 leptas per dram	42,000		
	———	132,975 =	4,749
2. Indirect Taxes—			
(*a*) Octroi on victuals imported into the city	60,000		
(*b*) Two per cent. additional import tax towards the maintenance of hospitals and for city improvements	35,000		
(*c*) From adjudication of above taxes, &c.	7,000		
(*d*) Tax on cattle slaughtered and fish sold	19,500		
(*e*) „ for waterworks	35,000		
	———	156,500 =	5,589
3. Direct Taxes—			
(*a*) Farming of the 2 per cent. duty on cereals	4,000		
(*b*) „ „ olive oil	7,000		
(*c*) „ „ vineyards	3,600		
(*d*) „ „ gardens, &c.	3,320		
(*e*) „ communal beehives	575		
(*f*) One-fifth of taxes on stock	1,465		
(*g*) From taxes on buildings	19,500		
(*h*) „ patents (guilds)	17,400		
	———	56,860 =	2,081
4. From Sales of Municipal Property—			
(*a*) Sale of land	20,000		
(*b*) „ refuse of the city	5,400		
	———	25,400 =	907
5. From various sources	—	1,820 =	65
6. Arrears from previous years	—	25,000 =	893
Total	—	398,555 =	14,284

Note.—The drachmas are converted into pounds sterling at the rate of 28 drachmas per £.

II.—*Kingdom of Greece. Pursuits of Population in* 1861.

Land proprietors	16,122
Manufacturers	32,801
Agriculturists	147,507
Shepherds	38,953
Artisans	19,592
Men-servants	12,651
Agoyats (drivers and carriers)	2,307
Artists	1,346
Clergy	5,102
Shopkeepers	9,452
Merchants	793
Sailors of the royal navy	510
„ commercial navy	19,303
Public functionaries	3,553
Municipal functionaries	5,199
Professors and teachers	1,176
Lawyers	394
Newspaper writers	68
Medical men	398
Apothecaries	161
Students (male)	42,680
„ (female)	9,035
Midwives	832
Female servants	7,724
	377,659

III.—*Kingdom of Greece. Details of Cultivation,* 1860.

	Stremmata.	English Statute Acres.	Proportion per Cent.
Wheat	944,093	233,190	41·27
Barley	362,871	89,629	15·86
Maize	549,574	135,745	24·02
Other cereals	431,107	106,484	18·85
Total cereals	2,287,645	565,048	100·
Pulse, beans, &c.	34,950	8,633	—
Tobacco	25,996	6,421	—
Cotton	21,105	5,213	—
Vineyards	492,502	121,648	—
Currants	153,058	37,805	—
Olive groves	370,000	91,390	—
Mulberries	75,000	18,525	—
Figs	18,000	4,446	—
Valonea	13,000	3,211	—
Sundry cultures	238,340	58,870	—
	3,729,596	921,210	—

IV.—*Kingdom of Greece. Income from Forests in* 1867.

	Drachmas.	£
1. Tax on felling timber (17 per cent. on value)	210,741	
2. Proceeds of rosin (20 „)	30,014	
3. „ chestnuts, walnuts, &c. (10 per cent.)	5,697	
4. „ valonea	24,500	
5. Custom dues on valonea exported, 2·50 dr. per cantar	200,000	
	470,952 =	16,820

Note.—The value of timber is	1,239,653	
„ rosin „	150,000	
„ other products is	56,770	
„ valonea, at 12 dr. per cantar	2,245,000	
	3,691,423 =	181,836

Wood for charcoal is free from all taxation.

V.—*Kingdom of Greece. Number of Live Stock subject to Taxation in* 1865.

Sheep	1,778,729
Goats	2,289,123
Cattle and cows	57,910
Horses	69,787
Mules	29,637
Asses	64,051
Pigs	55,776
Camels	72
	4,345,085

Note.—Animals exempt from taxation are such as the following, viz.:—

Sucking pigs, kids, and lambs; foals of horses, asses, and camels, and calves up to the age of two years; and every sort of beast used in husbandry. One pig free of taxation is allowed to every family.

VI.—*Kingdom of Greece. General Trade.*

Countries.	Total Value of Imports and Exports in	
	1859.	1864.
	£	£
Great Britain	782,484	1,146,061
Turkey	745,137	698,152
France	378,823	520,087
Austria	370,294	447,409
Ionian Islands	89,999	109,112
Russia	79,850	93,025
Italy	—	158,056
Sardinia	28,682	—
Tuscany	17,130	—
Naples	45,297	—
Danubian Principalities	39,861	57,564
Egypt	48,134	68,228
Holland	34,802	2,940
Belgium	9,486	10,859
Spain	977	178
America	41,251	20,053
Various other countries	68,167	—
	2,780,374	3,331,724

VII.—*Kingdom of Greece. Special Trade.*

	Value of Imports in	
	1859.	1864.
	£	£
Various textile fabrics	311,912	531,637
Corn and other cereals	258,097	260,618
Hides	140,753	174,801
Leather	22,469	23,889
Sugar	107,707	100,266
Timber	83,526	81,220
Twist	72,074	50,052
Cattle	49,889	40,693
Pig-iron	19,833	20,370
Iron in bars, sheets, &c.	27,784	23,755
Salt fish	43,892	52,804
Sulphur	34,363	—
Coffee	38,076	42,087
Rice	30,588	32,615
Oils	28,782	—
Fez caps	23,029	—
Liquors	22,879	—
Hardware	20,498	—
Paper	18,179	—
Dye-stuffs	15,559	—
Various other articles	281,707	528,980
	1,651,596	1,963,737

VIII.—*Kingdom of Greece. Special Trade.*

	Value of Exports in	
	1859.	1864.
	£	£
Currants	448,484	397,777
Silk cocoons	65,266	22,561
Wine	36,976	43,035
Spirits	—	971
Hides	7,535	8,813
Leather	32,380	43,408
Fruit	27,125	—
Figs	26,958	47,727
Silk	25,355	—
Tobacco	23,194	45,279
Valonea	23,012	39,358
Cattle	22,839	21,184
Corn	18,840	—
Cheese	19,764	—
Olive oil	10,227	—
Emery	9,158	—
Wool	11,382	—
Gunpowder	—	29,958
Cotton	—	49,117
Sponges	5,247	—
Porcelain-clay	5,048	—
Various other articles	55,733	150,991
	874,523	900,179

IX.—*Kingdom of Greece. Roads Opened up to* 1867.

	Length in	
	Kilometres.	Miles.
From Athens to the Piræus	8·0	5·0
„ „ Eleusis	22·0	13·7
„ „ Chalcis (finished portion)	21·5	13·1
„ Eleusis to Thebes, by way of Mount Cytheron	48·0	29·8
„ „ Megara	20·0	12·4
„ Lamia to Stylida	15·5	9·6
„ Amphissa to Itéa	12·7	8·0
„ Thebes to Chalcis	34·7	21·5
„ „ Livadia (portion made)	9·0	5·6
„ Megara to Kalamaki, by way of the Scyronian rocks (portion completed)	9·3	5·7
„ Kalamaki to Loutraki, over the Isthmus of Corinth	6·5	4·0
„ Kalamaki to New Corinth	7·6	4·7
„ Argos to Nauplia	10·1	6·2
„ the Mills of Nauplia (Lerne) to Tripolis	50·0	31·0
„ Tripolis to Megalopolis	32·8	20·4
„ Sparta to Gythium	47·5	29·5
„ Kalamæ to Nissi	10·0	6·2
„ Pyrgos to Katacolon	13·0	7·8
„ Xerokhori to Oreï (portion completed)	2·5	1·5
Total	380·7	236

X.—*Kingdom of Greece.*

Income.		Drachmas.	£
1. *Direct Taxes*—			
Tithe on grain and impost on vineyards, together with taxes on produce collected on exportation at the custom house		12,205,000	435,893
2. *Indirect Taxes*—			
Customs, stamps, port, and consular charges		13,285,000	474,464
3. *National Establishments*—			
Post office, telegraph, &c.		804,700	28,739
4. *Public Property*—			
Duty on mines	641,000		
Salt works and mineral waters	760,000		
Fisheries and forests	610,000		
Olives, vineyards, currants, and miscellaneous	604,110		
		2,615,110	93,397
5. *From National Lands Alienated*—			
Amounts falling due this year		1,000,000	35,713
6. *Miscellaneous Revenues*—			
Tolls, judicial costs, fines, dividends on shares held by the Government		577,025	20,608
7. *Ecclesiastical Property*		245,500	8,768
8. *Sums Due on Previous Budgets*—			
Being arrears of taxes		1,500,000	53,570
9. *From Public Debtors*		60,000	2,143
		32,292,335	1,153,296

Expenditure.	Drachmas.	£
External debt	1,075,000	38,392
Internal "	1,875,870	66,995
Pensions	2,643,820	94,423
	5,594,690	199,810
Civil list	1,125,000	40,178
Remuneration of deputies	371,000	13,250
Ministry of justice	2,421,001	86,464
Foreign Ministry	565,650	20,202
Home "	3,490,799	124,671
Education and church	1,482,223	52,937
War Ministry	7,968,762	284,598
Naval "	1,508,000	53,857
Finance "	1,007,845	35,995
General Government expenses	2,077,728	74,204
Sundry payments	546,000	19,500
	28,157,249	1,005,666

XI.—*Kingdom of Greece. Revenue for the Years* 1833 *and* 1866.

	1833.	1866.
	£	£
I. DIRECT TAXES.		
1. Land tax and revenues from national lands	147,426	435,979
2. Tax on bees	—	1,786
3. " live stock	18,713	48,214
4. " buildings	—	21,429
5. Patents (guilds)	—	14,286
6. Pastures	—	1,428
II. INDIRECT TAXES.		
1. Customs	72,982	232,143
2. Stamps	—	107,143
3. Sundry rates	8,537	19,643
III. PUBLIC ESTABLISHMENTS.		
1. Post office	344	23,214
2. Telegraph	—	5,357
3. National printing establishments	308	168
IV. NATIONAL PROPERTY.		
1. Mines and minerals	211	15,000
2. Mineral waters	24	214
3. Salt pits	5,637	28,571
4. Fisheries	3,672	8,750
5. Forests	1,664	13,393
6. National olive groves	3,754	—
7. Currants and vineyards	362	9,821
8. Gardens, &c.	1,466	7,857
9. National properties worked by Government	—	3,571
10. Public buildings and workshops	3,571	2,143
11. Rice fields	118	—
V. SALE OF NATIONAL LANDS.		
1. Interests and sinking fund on dotations of land	182	7,322
2. Part payment of olive groves sold	705	36,786
3. " building land sold	—	786
VI. SUNDRY REVENUES.		
1. Interest on arrears of taxes	—	5,000
2. " 1,000 shares of the national bank	—	3,571
3. Casual receipts	2,147	9,893
4. Proceeds of church property	—	8,900
5. Arrears cashed	3,936	50,535
	275,759	1,122,903

Note.—The land tax being one-tenth of the production in the budget of 1833, while in 1866 it had been reduced to one-twentieth, the amount of that tax has been doubled in the above table for the year 1866 (to make it equal to one-tenth), in order that the comparison of the national resources in both years should be fair and complete.

The INCREASE *of* MATERIAL PROSPERITY *and of* MORAL AGENTS, *compared with the* STATE *of* CRIME *and* PAUPERISM. *By* J. H. ELLIOTT, ESQ.

[Read before the Statistical Society, June, 1868.]

CONTENTS:

PAGE

PART I.

I.—Introduction 299
II.—Aliments 304
III.—Wages 305
IV.—Savings Banks 306
V.—Emigration 307
VI.—Education 308

PART II.

VII.—Introduction 311
VIII.—Pauperism 312
IX.—Insolvency 312
X.—Police 313
XI.—Crime 315
XII.—Conclusion 319

PAGE

APPENDIX.

A.—Comparative Imports into United Kingdom 322
B.—Import and Export Trade, and Home Consumption 323
C.—Savings Banks Deposits 324
D.—Education, Cost of, and Number of Children Educated.... 325
E.—Pauperism of England and Wales 326
Pauperism of the Metropolis 326
F.—Criminal Offenders Convicted 327
G.—Indictable Offences, England and Wales 328
H.—Indictable Offences, Metropolis.................................. 329
J.—Persons Committed for Trial 329
K.—Fires known to the Police 330
L.—Relative Increase of Fires in London 330

PART I.

I.—*Introduction.*

IT is proposed to place some groups of familiar facts and figures in an unusual apposition, to see to what conclusions they point. The subsequent tables are exceedingly suggestive when so placed. The population was taken in 1851 and 1861, showing an *increase* of 12 per cent. in England and Wales, 6 per cent. in Scotland, and a *decrease* of 12 per cent. in Ireland. The net increase of the United Kingdom being 6 per cent. Let this numerical increase be remembered while studying the Tables A and B, which exhibit a much greater relative supply of the various things which go to make up the materiel of human well-being—food, clothing, and fuel; add also of education, as narrowly understood, and of education in its true meaning, either for good or for harm, and of religious instruction. To this add the improved sanitary condition of the people, by reason of better drainage; of improved dwellings, as far as they go; extension of medical aid and hospital relief; more temperate habits; and, what does not admit of measurement, the kinder social and moral relations of the various classes of the people. The wealthy and intelligent, if they err at all, err now on the side of too much solicitude and active interference, with their less fortunate fellow-creatures. Friendly and courteous behaviour seems to increase daily; and gentler manners, arising from the better training and example of the upper and middle classes, which reflects usefully upon the conduct of all. Very much good, little heeded, is attributable to railway discipline, and to the honourable and generous policy under which the affairs of railways are usually conducted. All these are so much moral teaching for the millions of railway passengers. The less use of alcoholic drinks, consequent upon railway travelling, allows the brain to continue in a more normal state of tranquil health, a condition closely affecting human conduct. All this, if carefully thought out, will indicate a very great increase in the power and quantity of those agents which tend to improve the morals and manners of the people. They must produce great practical results of a most cheering kind, but they do not do so *nearly* to the extent they ought to do. There is a portion of the people which do not illustrate much, if any, of these happy results, or *the amount of violence, of crime, and of indigence* would not concurrently manifest so much increase. It is not enough that crime should be even stationary, which it is not; for if these good agents did their specific work undisturbed, moral disease, crime, and misery, would very much *decrease;* and in such a wealthy and improving nation as is Great Britain, we have a right to expect this result. If certain medical treatment were known to be capable of relieving certain diseased symptoms, and yet did not do so in some or many cases, the physician would say, as he often does say (especially when attending ignorant and vicious people), "There is "something wrong here; that does not take place, which all experience shows should take place; there is some antagonistic agent "at work. I apply known and proved remedies, yet the disease "continues, and is even aggravated." So, if vice and misery, crime and pauperism, still increase among a people, when so many curative agents increase, we must inquire more deeply, and ascertain what the antagonistic agents are which spoil our work, baffle our hopes, and resist our sanitary influences as well moral as physical.

Notwithstanding all this, which, according to moral and physical laws, should be followed by less and less misery; when we find that misery increases under our hands, we are compelled to ask what is yet omitted, or what, if anything, is still done of an evil tendency which spoils our work? What other things do we do which may or may not be snakes in the grass? Whatever they be, they ought to be fearlessly exposed, candidly and honourably acknowledged, and our policy changed. Some things are good in moderation which are destructive in excess, but some things are bad in every degree.

Much of human ill depends upon organisation, which is hardly to be reached by human interference, at least in the present state of our appliances, but a larger portion of human ill is amenable to wise management. The causes of misery which depend on our organisation are, defective animal strength, depraved appetites, imperfect intelligence, defective self-control, commonly shown in the absence of industrious and frugal habits, or in the undue energy of the passions, the *healthy* action of which are indispensable to happiness—due adjustment is virtue, too much or too little is vice.

Improvidence, *i.e.*, want of thrift, is the usual cause of misery among multitudes. Common prudence seems a very uncommon virtue; but with increase of so many good influences improvidence ought to decrease and thrift to increase, but they hardly do so. The lower orders especially, consume much more than they did, and in a wasteful manner. If luxuries increase, the consumption thereof must not be allowed to increase without due regard to the future.[*]

The people obtain more and more good things, but they consume and waste so much of this excess that they ever fall into indigence; those who do so, suffer deservedly, and they ought to be let alone. Year by year there is less excuse for poverty in this country, therefore those who so suffer, ought not to be relieved, or only with utmost stringency, else they are thereby encouraged in their vicious course of life, and, what is much worse, bystanders are demoralised, that is, they are discouraged in their own difficult self-denial, and invited to disregard the future. If we cannot annihilate misery, our duty is to reduce it to the minimum, but by injudicious means we seem to insist that it shall ever continue at its maximum. It would be much more humane even, to leave all such suffering persons to their fate (but that is not necessary), for misery would be reduced by such severe but wholesome examples. Our practical teaching is, "be lazy, wasteful, and extravagant, and if any evil "come there are those who will relieve you."*

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[*] The dietary of a mechanic in the east of London (where there is *now* much poverty), earning from 36*s.* to 40*s.* per week, was in 1865 thus: he goes to work at 6, taking a dram of rum, breakfasts at 8, tea or coffee, eggs and bacon; luncheon at 10·30, bacon, mutton chops, or sausages, with beer; dinner at 1, meat, bread, potatoes, beer; at 3 to 3·30, a dram, usually of rum; 4·30 he goes to tea; home for the evening at 6, unless extra hours at extra rate of payment. Supper at home, sometimes of hot meat or poultry.—(*On the Statement of the Master.*)

Others in the same district would go into a public-house on a Monday, throw down 20*s.*, and order four bottles of sherry, and returning to work on Tuesday, would boast that since Saturday they had been living at the rate of a 1,000*l.* a-year. Men engaged in the city have wages from 15*s.* to 16*s.* a-week, but make with fees 40*s.* to 45*s.* weekly. If they take home 15*s.* for the wife out of 16*s.*, keeping *one* for themselves, they think they make fair contribution—they say nothing of the 24*s.* to 30*s.* extra.—(*Idem.*)

Men who two years ago were employed six days in the week at 40*s.* to 50*s.*, gave the *smallest* sum to their family on which they can drag on, and now that they get work only four or five days in the week, their families are no worse off, for they always did and do get only the *minimum*. The man himself has less drink.

A man with a gang of labourers under him, working on a farm near London, makes sometimes 40*s.* a-week. His wife complained the family had barely necessaries, but showed the visitor the beer score for the week—17*s.* 6*d.*

The true dogma is this, that in England there ought to be but *one charity* in the whole land, *i.e.*, the national poor law. All who suffer ought to be relegated to that really grand national charity; to it and nowhere else, except it be that small section of suffering persons, who are the surrounding of each one of us, who are known to us, and with whom we have some special or personal sympathies, our relations and intimate friends, and it may be our faithful servants, if such exist, honest to us and thrifty to themselves, these may be specially relieved by ourselves on the condition of our closer and affectionate sympathy with them.

All the rest of human sufferers are our common fellow-creatures, who have *equal claims* upon us; none of them ought to have special aid or arbitrary preference. Special charity to small groups of sufferers fancifully selected beyond the circle of those we respect and esteem, is partiality and injustice to the larger mass who suffer on and get no special relief. After having aided one's own friend or his children, who cares whether it be Jones or Smith who enters the almshouse or the orphan asylum? who cares whether it be Brown or Hobbs that goes only to the union? All these persons are our fellow-creatures, have equal claims to our sympathy, and they ought all to be equally well and kindly treated; and, if children, they should be usefully educated, not one better than another, for that is whimsical partiality and fanciful injustice. They ought all to go to the one *national charity*. Other public charities interfere with the good order of the State. Our own kind aid is due only to those we love and esteem, the national charity for all the rest.

That large mass of suffering which is the result of diseased organisation, or of organic depravity, depends as much on our original formation (inscrutable as it may be) as lameness or scrofula, idiotcy or deafness, and should *not be so treated* as to extend and perpetuate such depraved constitutions. A multitude of these diseased persons, but not quite all, should be left alone. Nature intended that the diseased stock should disappear and become extinct, and she has provided accordingly. Organic depravity should not be propagated and diffused by injudicious artificial interference. The healthy undisturbed process of animal life is to eliminate diseased organisms. The gardener propagates and encourages only the best fruits and flowers of their kind. The people of Scandinavia collect those hapless beings who are afflicted with leprosy into special hospitals. In Norway there are two, one at Molde another at Bergen, where they keep in comfort and ease those of their fellow-creatures who are infected with this loathsome and incurable disease. They say, here you shall live; but you shall not be abroad, contracting marriage and transmitting to another and another generation your dreadful affliction. There is much vice which is a leprosy of the soul, is as incurable, and should be so treated.

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* During a late outflow of charity in the east of London, a sack manufacturer complained that he had great difficulty in getting any sacks made. See also *Statistical Journal*, vol. xxviii, p. 196, "Lancashire's Lesson."

But the curable are still a large section of evil-doers. Those persons who are amenable to educational discipline, a discipline of no subtle and recondite sort arrived at only by some difficult process, like that which enables men at last, after many trials and failures, to make a new dye or a new engine. What has hitherto been done with the most amiable motives—nor labour nor money spared—has almost entirely failed, if the figure-facts before us are any evidence. The reports of various charitable and reformatory societies point at best to very uncertain results, the larger portion of those who are reported to the world as reformed offenders—cases of moral cure—are at best doubtful. They cannot be, and they are not, thoroughly traced. Besides, the most satisfactory cases of cure are of persons who, having been taught some useful handicraft, are sent to the colonies where, labour being scarce and work abundant and the land and the produce of the land in excess, the wretched offender and mendicant, the transient patient in the reformatory, whose existence has been that of severe continued self-denial or of criminal abundance, is placed in a new state of life, where he gets 3*l.* or 4*l.* a-week. Not much moral pharmacy, good-advice-alteratives, are required to change the youth who has matriculated in these penal schools into useful and fair-living workers, where they must behave well or disappear in the wilds. It is not that their moral nature, not that the diseased volitions of their brain, or it may be of a naturally depraved organisation, have been changed, but that new and large rewards to industry have supplied stronger motives to good conduct. Some few creatures there are, who are bad, inveterately bad, for the pleasure of being bad, but excepting these, make it worth people's while, and most will become honest for a handsome consideration. At a familiar united meeting of *mauvais sujets* and of philanthropists, one man said, "Well, by picking "pockets and such like, I make 10*l.* a-week (500*l.* a-year); if you "will secure me as much, with no harder work, I will emigrate to "the Cape at once." Words—phrases—moral lessons—good advice—will not alone effect a change in men's conduct; with such gentle influences must be added the alternative of pain and suffering, with the secured reward in the end, of honest food for honest work. Many who have been submitted to the *materia medica* of the reformatory, have left that dispensary in improved moral health, but then they were persons of a class, happily rather numerous even among the evil-doers, who wanted no treatment at all, who did wrong once, and who, if they had escaped, would probably have played the fool no more. Many persons are submitted to medical treatment who would get well as soon, and perhaps sooner, *if left alone*, and these are the cases which form some of the triumphs of the doctor, and are the sources of his reputation. Going his rounds, an hospital surgeon—an honest one—said to his pupils, "Gentlemen, there is here nothing to interest us, one "portion of these patients will get well if we leave them alone, "the rest will die and we cannot help them." Some few moral sufferers are in the same hopeless condition, others can be cured, but only by other treatment than it has hitherto been the custom to apply.

II.—*Aliments.*

The large increase of material good things, as shown by Tables A and B (Appendix), has been chiefly appropriated and enjoyed by what are called the working classes. This mere numerical quantity inadequately illustrates their great material improvement, if we omit to notice that the richer classes of society have hardly shared this increase, because they *have always had enough and to spare of all such commodities.* In this respect they were equally well off in 1851 as in 1861 or 1865. Persons of 200*l.* or 300*l.* a-year and upwards, except in as far as the numbers of the class have increased, consume no more food, no more in weight and nutriment of beef, mutton, bread, tea, coffee, &c., in 1865 or 1861 than they did in 1851. The increase with them, can but have been in the luxurious and extravagant use of wine, silk, and perhaps a little extra wool and cotton, which, encouraging extravagance in apparel, has probably done as much harm as good to the national morals. This enormous addition to the good things, to the comforts of life, has been appropriated almost exclusively by poorer persons. During the 15 years this increase (in addition to the home supply), of 200 or 300 per cent. of animal food, 235 of butter, 162 of cheese, has been consumed almost entirely by the million. The upper ten thousand, or hundred thousand, have not had it, for this good reason, they could not have consumed it, "their cup already runneth over." If they take more it is wasted, and that would be inconsiderable, seeing that they belong (chiefly) to the thrifty, saving, and, as a consequence, *well-doing*, *good-managing class*.

The increased supply of one period over the other of those articles, chiefly of comfort and luxury, which are entirely of foreign growth, as tea, cocoa, sugar, rice, maize, spirits, is an absolute increase, and is not like the foreign increase of one period over another which must be added to the *unknown quantity* of home produce of wheat, &c. We know that the total quantity of tea, *e.g.*, has increased almost 100 per cent., but we only know that butter has increased by 235 per cent. of foreign butter added to the unknown quantity of home-made butter.

III.—*Wages.*

Whatever may be the advanced *price* of food, &c., the increasing *quantity* consumed is evidence of increasing *ability* to purchase.

The subject of wages has been searchingly investigated in the *Journal* of this Society. It is needless to weary attention by any exposition showing how much wages have advanced during the fifteen years under comparison. In volume xxiii of the Society's *Journal*, Mr. D. Chadwick states that wages have increased in Lancashire in twenty years, from 1839 to 1859, 10 to 25 per cent. in the cotton trade, and in the silk trade 10 per cent. In the building trades wages have increased 11 to 32 per cent. In many mechanical trades a general advance even up to 45 per cent.

In the south, wages in the building trade advanced about 10 per cent. from 1851 to 1861, and much more subsequently; at the same time there has been a diminution of the hours of labour claimed and readily granted, on the plea that time was wanted for these workers to improve their minds by the study of mathematics, geography, history, &c.; a great sham, by the bye, which it is not creditable should have been listened to. Advance wages and shorten labour if you will, but do not believe that much use will be made thereof for mental improvement. Many of these people (and rightly enough) use their increased leisure by working for themselves. The best fellows among the builders and the like, do jobs on a Saturday afternoon if they do not idle about, and even that is not so bad recreation for men who work hard either with their brains or their muscles. Study they do not, and they would profit little if they attempted it.

Mr. Purdy's exhaustive paper, in volume xxiv, shows the wages of the agricultural labourers in thirty-four counties to have increased about 12 per cent. from 1837 to 1860. A subject of great rejoicing to all who know the admirable though humble virtues which illustrate the lives of that class of the community, who are at once the most useful and the most hardly done by, the most patient, enduring, and uncared for, just because they have been the least troublesome and have kept their sorrows to themselves.

A few additional facts may be interesting.

In Kendal, in the woollen trade, during the period under notice, the wages of—

Young persons have advanced	20 to 25 per cent.
Women "	25 "
Skilled women, working in looms and machines	50 "
Skilled men " " "	5 to 10 "
Power loom weavers, women, from 5*s.* 3*d.* to 8*s.* 2*d.* per week	
Spinners, from 18*s.* 4*d.* to 22*s.* "	

During this time the population of the borough of Kendal increased about 2 per cent. only.

Persons in the web trade, in Somerset, earned in—

	s.		*s.*
1851, Men	12	1861, Men	15
" Women and boys	5	" Women and boys	6

No change took place in the wages of letter-press printers from 1816, when sixty hours' work earned 33*s.*, until 1866, when an advance to 36*s.* was made, or 9 per cent.

It is then much within the truth to say, that in the last ten or fifteen years wages have advanced, at a minimum, 15 per cent.; at the same time there has been so steady an increase in the demand for workers, that none need have been out of work who could and would work. The demand is almost above the supply, or it has been so until lately, as well for unskilled as skilled labourers.

IV.—*Savings Banks.*

The *capital* deposited in the savings banks for the United Kingdom was for the periods—

	£
1851	30,277,000
'61	41,546,000
'65	45,228,000

(including the Post Office Savings Banks) being an increase in fifteen years of 50 per cent. But, as Table C (Appendix) shows, the increase is more in the amount of deposit, 22*s.* 2*d.* and 29*s.* 7*d.*, than in the number of depositors, the *greater thrift* of the thrifty depositors is better shown than the *greater number* of depositors. Thrift, it seems, is rather a fixed quantity.

In this cheering increase, Ireland enjoys its full proportion. Thus, the virtuous section of the people, making wise use of prosperity, goes on improving their state of independence, for we cannot believe that the dangerous classes make any considerable deposit in savings banks. These have full command over other and ever-increasing funds provided by the public for their relief—in parochial and other luxurious charities, in pillage, in the warm and comfortable asylum of the prison-house, the reformatory, and the hospital, and now in the casual ward of the union house. Perhaps of all modern fancies this is the most mischievous. Here the wandering idler is supplied with food, lodging, bath, and attendance, gratis, such lodging as used to cost him *2s. 6d.* to *3s.* a-week. The stone-breaking and the oakum-picking is but nominal, or amusing exercise. Discipline cannot be enforced. The officials and others are so ill-used alike by the paupers, by the humane magistrates, and the public, that they almost give up their duty in despair, and connive at the ill-conduct they cannot suppress and have no means of punishing. This is very much the case now in many prisons, and other asylums for the repose of evil-doers. It is only people in the best moral health who deposit in savings banks, the rest—that is, those who are morally diseased—know better, and are too much encouraged in their unthrift.

Thus, *the means* by which the people have been enabled to buy an ever-increasing quantity of good things, *have increased still faster*, so that the thrifty portion of the humbler classes have been enabled in fifteen years to increase their savings from thirty to forty-five millions. To say nothing of the millions which have been added to their own or to the national capital by the richer class, who thereby have supplied the improving fund, wherewith more workers are better employed. There is much sound political economy in the maxim of low life, "What are the rich for but to take care of and "keep the poor?" Capital for their work, money for their relief.

V.—*Emigration.*

Emigration for the ten years 1851-61 (continued to the present time), has steadily relieved the labour market. This is another cause of the increasing wage-rate, and by which the eaters become fewer and their severer competition is lessened. Thus there has been again more and more bread for the eater. It is time to consider if the State should continue at the public cost its emigration agency. We cannot without limit, be at once a nursery and an almshouse for half the world, losing so many of our best workers, and making our colonies richer at an undue charge to the mother country, which is thus left to struggle with an ever-increasing proportion of lame, lazy, and helpless persons who must be maintained by the labour of a less and less proportion of workers. The cost of rearing so many useful workers, during the period of their unproductive growth, is almost solely defrayed here in England,

and when they become productive workers they are sent *elsewhere*, at our own cost, or chiefly so; the only compensation being that they become better customers to us abroad than if they had remained at home. A farmer would soon be impoverished if he endured the cost of rearing foals and colts, and was deprived of the labour of his mature horses. At a time when there is a demand beyond the supply for domestic servants there are busy people, well meaning but not very wise, who, selecting the stoutest and best ordered of our young women, send them carefully consigned to Australia. If such young women desire to improve their own condition by emigration, they ought first to engage in some useful labour here, and with their own saved earnings deport themselves to other regions. A few years of thrifty labour here, especially as domestic servants, would render them at once self-dependent and properly trained workers elsewhere; in all respects better qualified to become good settlers.

VI.—*Education.*

For the purposes of education, or for that limited education more correctly called pedagogy, treasure has been liberally bestowed. The sum expended in the United Kingdom in 1854 was 715,000*l.*, which increased in 1865 to 1,369,000*l.*, or nearly double. In 1854, 1 in 38 of the population attended schools; in 1865, 1 in 22 (see Table D, Appendix). A large percentage of the population ought to have exhibited the good effects of this education in their conduct in life, for during this time some at least must have emerged from the state of pupilage into that of adolescence and active life. That such has taken place in but a small degree, if at all, subsequent tables will show.

Still more ought such good effects to appear, when we add the great increase of religious teachers and places of worship. Clergymen, priests, and all such, have been, and very consistently, most tenacious that religious training is of essential importance in the State, and that no good can be expected from any teaching which is not intimately allied with their own especial ministrations. Some seven or eight millions yearly is appropriated to special religious purposes, and the sum is increasing.

The means—other than religious—of moral and intellectual teaching have also enormously increased. Newspapers, halfpenny and penny books, pamphlets, serials, works of art, not to omit photography, come forth in myriads. Especially does the photographic portrait maker deserve a place in the ranks of moral teachers. In these literary educational agents, England contrasts favourably with France. Three or four years ago there was but one journal, "Le Petit Journal," of universal circulation over the country, inferior in size and still more in matter to any of our lowest priced English newspapers.* It is worth while briefly to inquire why all this has so greatly failed.

The pedagogy of education has little to do with crime and pauperism, though it is taken to be a specific against those evils. Reading and writing, as mere reading and writing, may do as much harm as good, and can no more make an educated person than does a pen make a scribe, or a box of carpenter's tools a boat-builder; yet that sort of so-called education, is correctly taken to be a sign or symptom of some really good training more or less. Those parents who have taken care to get their children schooled are usually a good sort of people, and have done much besides for their children in home training. As the weather-cock shows the way of the wind, so the sending to school shows the way of the family.

Useful education means habitual industrious work and severely enforced self-denial. The training of a good labourer commences from the time when, as a boy, he follows his father into the fields; and so far from an agricultural labourer being unskilled—though unschooled—he is a variously skilled workman, and, to be good for anything he must be brought up to his profession from his early boyhood. It requires more varied qualities of mind and body to be a good labourer than to be a good carpenter, whose tools keep *him* square, "By line and by rule," &c., while the other makes parallel lines in a field, with an awkward thing called a plough, and still more awkward things called horses.

Further, our tables show a sorrowful dissonance between means and results, because, with regard to females, true training has been misplaced by false schooling. Domestic servants, male and female, were one million in 1861, and to fit them for such useful labours, their own future natural occupations as heads of families, and especially as wives and mothers, the duties of the household afford the best kind of training, and until the market for domestic female servants is full, charity ought not to push necessitous women into any other so appearing more genteel occupations.

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* Of the state of literature in 1860 we have very ample statistics. Of monthly magazines more or less devoted to fiction, there were 2,210,000 circulated annually; of journals published weekly, the chief feature being novels, 700,000; of single romances issued weekly at a penny, 5,000; of immoral publications, 52,500; and of magazines at twopence, 374,000, exclusive of sectarian literature, religious, temperance, educational, &c.; total, in round numbers, 3,349,000. Comparing this with 1831, before the stamp tax or advertisement duty had been repealed, we see against the 125,000 of monthly magazines circulated then over 2,000,000 now; and whereas there existed then no cheap fiction of a really wholesome kind, we have now a circulation over a million of journals at a penny and twopence, containing stories not classed as immoral, against only 52,500 of a notoriously immoral kind. But the great impetus to the spread of cheap literature of all kinds was given by the repeal of the paper duties in 1861. We learn, by an article in the "Book-"seller," of 31st May, 1861, the materials for which were supplied by Mr. Francis, the following facts concerning fiction. Three years after the repeal of the excise there were of journals containing novels, sketches, &c., thirteen at a penny and a halfpenny, with an aggregate *weekly* issue 1,053,000; of romantic tales published separately, eight publications, aggregate issue 195,000; of immoral publications, 9,000; of higher class magazines, published monthly, 244,850. This is not including religious and other literature where fiction was a secondary object. Thus we have a weekly and monthly issue of respectable publications almost equal to the entire annual issue of a few years previously, and of immoral publications we have 9,000 against 52,500 then!—"Social Science Journal."

The things taught in a school, useful as they may be, are of small value indeed, compared with the practical training which girls receive in that true school of humble life—the kitchen; where they are (or ought to be) taught *obedience*, and required to perform *subordinate labour*, drudgery it may be, though much of it is indeed skilled labour, in well-ordered households, of an expenditure of 200*l.* or 2,000*l.* a-year.

It would be well if those kind ladies who do so much for school education and out of door charities, would inquire if the true schools for their superintendence be not their own households, their kitchens, pantries, nurseries; if they cannot teach there they can teach nowhere. Some of our most sensible ladies take girls into their households for the mere purpose of teaching the accomplishments of good housewifery. All educational schemes and charitable fancies are likely to do more harm than good, if the *nomos oikou* (the law of the house) be unknown and neglected. The great merchant and the little mechanic, alike *collect* the grains of subsistence, which in the end the good housewife *distributes* with as sharp a percentage of saving here and there as they have been scraped together by keen commissions and profits.*

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* The practical good of this sort of training, even among persons of a superior class, was better understood in former times. We read in McDiarmid's "Lives of "British Statesmen," that, "as a further step in his education Thomas More was placed in the family of Cardinal Morton. In consequence of the form into which society was thrown by the feudal institutions, the only road by which men of inferior rank could hope to reach distinction and power was by the favour of the great proprietors of land, the chief ecclesiastics, &c. In their families, also, the politeness, elegance, and knowledge of the age were to be found; for while the rest of the community, groaning under the tyranny of their superiors and the terrors of superstition, added the most abject poverty to the most degraded ignorance, the patronage of the great was necessarily courted by men of learning, as their only resource; and distinguished scholars having a ready access to the tables of persons of condition, at a period when learning, from its rarity, was held in high estimation, brought along with them a comparative degree of information and refinement. At the same time the internal economy of a great man's family, presenting a similar appearance with that of the monarch on a smaller scale, was the proper school for acquiring those accomplishments and that address by which success at court might afterwards be ensured. Influenced by the consideration of these advantages, persons of good condition were eager to place their sons in the families of the great, as the surest road to fortune. In this station it was not accounted degrading to submit even to menial offices; while the greatest barons of the realm were proud to officiate

Part II.

VII.—*Introduction.*

All these moral and material agents having enormously increased during ten or fifteen years, and much above the increase of population,* we now seek for their effects on the conduct of the people. If they show no favourable result, or at best a very inadequate one, we had better give up the expense and save our fruitless toil. But these agencies, counteracted as they have been, are still of priceless value, and had it not been for their salutary force we should have sunk lower in pauperism and crime. The small diminution of crime—where crime has diminished, a grave matter of doubt—is by no means commensurate with the prodigious increase of all these wholesome influences, which would have produced on the largest scale their own specific effects, had they not been so gratuitously disturbed by evil agents. What those agents are, is well enough known and understood by thinkers, though not very readily admitted by people in general, and scarcely ever declared in public. *They form one group, and one alone.* All has been going on for good in this country, but a sentimental humanity, *interfering with the criminal law and prison discipline, and an inconsiderate multiform charity*, which have put out of gear the action of the laws of nature and of man. Let any man tell the world why pauperism increases, why crime increases, or why, at best, do both remain stationary, except as both are influenced by bad discipline, and he will discover the philosopher's stone. The inquiry is exhausted; none will say that the causes enumerated if left undisturbed can produce any effect upon society but good. *All except one*, and if that one be NOT the disturbing evil hand, which puts out of order all the rest, then why do vice and misery so increase under our hands? The increase must have a cause, and there the one cause lies, patent before us; for if it be not that, then we have an uncaused effect, or

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as stewards, cup-bearers, carvers to the monarch; a youth of good family could wait at the table or carry the train of a man of high condition without any loss of dignity. The patronage of the great man being naturally secured to those who had acted as his inmates and retainers, admission into the families of the principal officers of State, who had preferment most directly in their power, was particularly courted." This illustrates a custom common in England among all classes, and continued from the time of Henry VIII, towards the end of the last century.

* The smaller population-increase, when the whole United Kingdom is noted, arises from the fact that, while the outflow of the people from Ireland has reduced the redundant population there, the large *migration* of them into Great Britain from Ireland has unduly raised the percentage of increase here, and has unhappily increased in larger ratio the ill-conditioned population. The Irish constitute an unfair proportion of our criminals, a state of things imminently dangerous as well moral as political, and one with which the Government must concern itself, or some catastrophe may be feared.

the cause is still latent, unknown, undiscovered, and hardly to be reached by human inquiry. But to say that the cause which has been just alleged is not the true one, is to deny all human experience, to deny one's own instincts, and to ignore the laws of our moral nature, indeed of the whole animal world. If more food, more employment, more knowledge, more enjoyment, more social kindness, do not cause those who are under their influence to behave better—in truth to be happier—there must be some concealed disturbance to look after. If a man—any one man—having all these things in abundance, yet sink down in atrophy, there surely must be some diseased action, in his own nature, or in some poison with which he is infected that resists and repels all nutritive agents.

VIII.—*Pauperism.*

The forces which have produced so large and increasing a mass of pauperism (see Table E, Appendix), have been too energetic to be resisted with much effect by the *vis medicatrix naturæ*, aided by our resources of moral and intellectual hygiene and pharmacy. The political physician—statesman or philanthropist—has applied the costliest remedies of his art, for many a long year, and here is the result; but a sound education by the law and by public opinion, would long ere this have taught men, and enforced them at their peril, to provide in prosperity against adversity.

It is no new thing to be told the truth, that the pauper must be in all respects worse off than the humblest self-supporting labourer; yet, as an illustration of the contrary practice, a man was some weeks since taken into a union house near London, he said, "If I "had known how comfortable I should have been in this place, I "would not have struggled as I did all last winter." We have weakened all the motives to industry and thrift. The sound rules of government are as old as reason itself. They are taught clearly enough in Scripture, and Tacitus tells us:—"By false compassion "we injure the community; industry will go to ruin; sloth will "predominate; men will no longer depend on themselves, but "having from their own conduct nothing to hope or fear, they "will look to their neighbours for support; they will first abandon "their duty, and then be a burden on the public." Surely some
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IX.—*Insolvency.*

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national system of education, not for good but mainly for harm, and so far the people have a bad education. Fifty years of incessant changes have left the insolvency laws in a worse condition than at any former period. Such laws, to be effectual, ought to restrain *by punishment* those who by wilful and avoidable conduct will not or cannot pay what they justly owe.

We know little of the magnitude of insolvency, we know not the true number of insolvents, nor the amount of treasure of which they despoil their creditors. It would be one step towards a reformation of the law, if we were informed yearly of our losses by insolvency, as we are of our losses by pauperism.

Some twenty years ago, the estimated loss was 50,000,000*l.*, and in all probability it is more now, especially when we add the gigantic disasters of 1866 and 1867, to which belong the large and new class of limited-liability insolvencies.

In the year 1865, out of 8,300 bankruptcies, nearly 6,000 were upon the petition of the debtors—the wrong-doers—seeking the protection of the law against those they had injured. And 5,200 trust deeds show how injured creditors submit to any terms rather than accept the assistance of the court. The shades of difference between many of these cases and compounding felony itself are not morally very distinguishable. In one case lately, a dividend of 9*d.* in the pound legally satisfied debts of 2,000,000*l.*, and in another case the like dividend on 500,000*l.* Such dividends on enormous debts are not rare (see "Times," 13th and 17th February, 1868). We sometimes read, "One murder makes a villain, thousands a "hero."

X.—*Police.*

Police is a transition force, intermediate between those agents which improve the education of the people, constrain good conduct and prevent crime, and those which discover and bring crime to punishment. It has now grown up into a large army (1866) of 23,728 men, costing 1,827,106*l.*, yet this force has with difficulty prevented things from becoming much worse. Better results ought long ere this to have appeared. An efficient police restrains crime as well as *detects* it, but it does not correct the tendency to crime—it does not reform depraved natures—it only renders the development thereof into active life more difficult or impossible. When we put a drunkard under restraint, we prevent, but do not reform him. The good citizens are mercilessly taxed to restrain *evil-doers.* A much less costly apparatus would control *the desire*, and would therefore in the end effectively and permanently reform the wicked. That is to say, humane discipline would present a stronger motive to work and take care, than, as is now done, to be lazy, dishonest, and cruel.

When it is said crime increases, the answer is often made, "Aye, " but a vigilant police brings more crime to light." There is much fallacy in this; the truth being, that for one crime that is *detected* by the police, there are many which are *prevented.* It is good to prevent, but it is still better to reform; that is, to diminish the power of the motives within a man which urge him to crime, by the active presence of counter-motives, rather than to restrain him in the deed he desires to do, by the presence of merely repressive forces acting upon him from without, which do not lock him up truly, but which hold the key before his eyes. All this is only force from without, acting on a weaker force within. We want men's conduct under their own will, to be directed in the right course by the energy of motives to do well, being stronger than the motives to do evil. The one set of motives being of an agreeable kind, the other being of a very disagreeable but useful kind, *i.e.*, reward and punishment. *Work and food, or pain.* Respect, peace, and comfort on one side, or sharp suffering on the other. Bread earned, or stripes inflicted. "Prisons' bonds, bread and water, will put sense into a fool's head." They knew that more than two thousand years ago in ancient Greece.

The vulgar notion of what is due to policemen, who are officers of the law, is illustrated by the treatment they receive at the hands of the lower orders. In the whole metropolis, for assaults on peace officers, were—

Convicted, in the average of three years, 1850-52	3,543
" " '60-62	3,123
" " '63-65	2,718
And in one year, 1866	2,514

being a great decrease, when we note the increase of the London population. In this part of education there has been a great improvement, because for this class of offences the punishments have been severer. Of 3,543 offenders, a total of only 86 *were committed for trial* (1851), but of the smaller number of 3,123 in the period 1861, 174 were so committed. More persons, therefore, were formerly treated with undue tenderness, *i.e.*, they were badly educated, and the safety of peace officers was less respected. The law has assumed its more humane severity, its moral education has improved, and we trace its good effect in the better behaviour of the people, and in the less suffering of the police. The person of the humblest peace officer ought to be as sacred as that of a judge or bishop, and protected by unusual severity. No man should be allowed to resist him or raise a hand against him. The civilization of a country is low indeed, while such grievous cruelties inflicted on policemen, especially by street ruffians, are but slightly punished, regarded with apparent indifference by the public, or are considered to be equitably compensated for in their wages. A sharp flogging ought with utmost certainty to be the penalty for a kick or a blow on a peace officer. Be it right or wrong, the arrest of any one by a police officer must be absolutely and loyally obeyed. To be innocently taken in hold is a disagreeable thing, but it cannot be altogether avoided, it is one of the misadventures, one of the accidental costs as it were, which all must lay to their account, as the price of so much protection.

XI.—*Crime.*

The alteration of the law in 1854, which extended the power of summary conviction before the magistrate, so disturbed the uniformity of former returns, that they now cease to be comparable. 1861, as compared with 1851, shows a considerable diminution in the commitments for crimes (except the more heinous ones), *not because such crimes have actually diminished*, but because they are differently treated. For while the commitments have decreased, the summary convictions for similar crimes have increased, many offences which used to pass to higher courts, are now decided by magistrates. Thus:—

The average number of persons summarily treated, for the *three years* 1857-59, was 250,619, or 128 in 10,000 of the population; for the *three years* 1860-62, 294,094, or 131 in 10,000; in 1863 333,641, or 138 in 10,000; and for the *three years* 1864-66, 317,568, or 149 in 10,000. But there were committed for trial or bailed, in the first period, 27,427; in the second period, 18,108; and in the third period, 16,155; making a total for the first period or three years' average, 278,044; second period, 282,202; and for the third period, 1864-66, 322,953; being an increase of 16 per cent. in ten years, while the estimated increase of population has been 10 per cent.

Again, the *average* number of persons committed or bailed, were for seven years, 1848 to 1854, *i.e.*, *before* the change in the law, 28,125; for seven years, 1856 to 1862, *i.e.*, *after* the change, 18,366.

Taking the four years after the alteration of the law, 1856 to 1859, the average number, 18,559; increasing afterwards from 1860-63 to 18,786; while the same class of commitments for one year, 1864, were 19,506; 1865, 19,614; 1866, 18,849.

Again, in five years ending 1861, inclusive, the totals were 90,234, and in five years ending 1865, inclusive, 98,265.

The *increase* of crime *coincident* with relaxed punishments is shown over a period of forty years, from 1817 to 1857 (in Table F, Appendix).

Offences against property *without* violence were, in 1851, 21,489, in 1861, 12,606, a decline caused by the Act of 1854. In the five years ending 1861, 62,828, and for the five years ending 1865, 67,146, being an increase of 4,318, or 6·9 per cent.

Offences against property *with* violence, decreased, 1851 to 1861, from 2,013 to 1,905; but for the five years ending 1860, the total of these offences was 9,351, while for the five years ending 1865 they increased to 10,521. In burglary and housebreaking there has been very great increase. *Malicious* offences against property (including arson) in 1851 were 270; in 1861, 257. But for five years ending 1860 these offences were 947, and for five years ending 1865, 1,816. A singular increase.

Offences of all sorts against the person, in 1860 were 10,043, and in 1865, 12,146. Assaults of all kinds, committed or bailed, in 1860 were 4,361, and in 1865, 5,814. In the year 1865 the total of assaults brought before magistrates was 60,406, and on peace officers, included in the above (about one-fifth of the whole), 12,270.

Of murders and murderous assaults the total of five years ending 1860 was 2,826, and 1865, 2,585. The total of ten years ending 1856 and 1866 were 20,219 and 22,589, or about 10 per cent. increase. (Tables G and H, Appendix.)

Crimes of violence indicate a more depraved state of the moral sense, and are very specific tests of the low state of education—not of the pedagogue—but of public opinion and of the law,—the law, which is the all-powerful schoolmaster. There has been so much talk about capital punishment of late, in which an affectionate interest in the blood-guilty has been strongly put forth in richly-coloured relief, while the victims and their ruined families have been left in darkest and most neglected shade, that public opinion seems to have lost much of its horror and all of its holy anger. Yet venerable authority says,—"Ye shall take no satisfaction for the "life of a murderer which is guilty of death, but he shall surely be "put to death."*

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* Ancient Germans had no scruple about public executions, on the contrary they thought the just gods themselves might fitly preside over these; that these were a solemn and highest act of worship if rightly done. When a German man had done a crime deserving death, they in solemn general assembly of the tribe doomed him to die with ignominy. Certain crimes there were of a supreme nature; him that had perpetrated one of these they believed to have declared himself a prince of scoundrels. Him once convicted, they laid hold of, nothing doubting—bore him after judgment to the most convenient peat bog, plunged him in there, drove an oaken frame down over him, solemnly in the name of gods and men. "There, prince of scoundrels, that is what we have had to think of thee on clear "acquaintance, our grim good night to thee is that! Lie there, and be our "partnership with thee dissolved henceforth. It will be better for us we "imagine!"—"Model Prisons, by Thomas Carlyle."

We know but little of the crime of murder. In the year 1866 there were—

Verdicts of murder by inquests	272
Reported by police	131
Committed for trial	55
Acquitted or insane	24
Sentenced to death	26
Executed	12

So that of *notoriously* known murderers, 12 only met a righteous doom out of 272, or 1 in about 23. But with the greater sharpening of men's wit by education and reading, it is to be feared that deeds of death have become more subtle and refined, and more scientifically perpetrated. Undiscovered murder, as by poison, is practised to a great extent in England, as well as in other parts of the world. We know this by the testimony of competent persons, especially doctors. 272 doubled will fall short of the total of lives sacrificed yearly, encouraged in great part by fanciful legislation and literature.

The proportion of convictions for serious offences has in a small degree declined in the ratio of population, but even with this improvement, the increased cost of our police may indeed be grudged (see Tables I and K, Appendix). This insignificant result is at last obtained only by an oppressive burden of two millions of money yearly, and by an inglorious abstraction of an army of now more than 24,000 stalwart men, at the most energetic period of their lives, from the productive industry of the country.* The game hardly pays for the candle. More wholesome and less costly means are at hand, had we the energy and benevolence to use them. But while this small improvement is concurrent with, as we see all along, an enormous increase in all the material and moral agents which ought

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* The total charge of the criminal classes was stated in a daily paper in the year 1866:—

	£	s.	d.
Police	1,827,105	16	7
Paid by treasury for criminal prosecutions	143,511	6	6
Cost of prisons	614,677	12	8
" convict prisons	237,333	2	–
Reformatory schools (treasury)	51,734	6	1
Industrial "	18,567	10	6
Criminal lunatics	45,037	12	–
	2,937,967	6	4

To which must be added the special cost incurred by prosecutors, the earnings of thieves while following their profession, and the incidental but great waste and destruction of property. It is no exaggeration to put this at 7,000,000*l.* or 8,000,000*l.* more.

to diminish crime, however much they may have added to the comfort and have caused a decrease in the physical suffering of multitudes, they have not done the best part of the work expected of them.

*Crime, England and Wales, Convicted and Punished.**

	Number Summarily Punished.	Number of Criminal Prisoners Sentenced and Convicted.	Ratio per Cent. of Criminals to Population Convicted.	Total of Offenders.
1851	cannot be ascertained	21,579	0·12	—
'61	263,510	13,879	0·07	277,389
'62	272,969	15,312	0·08	288,281
'63	283,641	15,799	0·08	299,440
'64	300,731	14,726	0·07	315,457
'65	312,882	14,740	0·07	327,622
'66	339,091	14,254	0·07	353,345

* The convictions in Ireland were in 1851 14,377, but from 1861 to 1865, the number declined from 3,271 to 2,663, the average of five years being 3,205. But the great decrease of criminals of late years in Ireland, has been apparently followed by a corresponding increase in the United States, as well as by an undue proportion of Irish offenders in England. Of 80,532 persons arrested in New York (population 805,651) during 1867, 38,128 were natives of Ireland, 2,764 of England, 970 of Scotland. Thus nearly one-half of the total offenders were Irish.

In respect of religious training there were, on the 1st of January, 1862, out of a total of—

Prisoners in England and Wales....	25,153	4,189 or $\frac{1}{6}$th Roman Catholics
Population being	20,000,000	1,500,000 or $\frac{1}{13}$th only ditto

Thus the Catholic offenders, instead of being 1 in 13, were 1 in 6.

		Roman Catholics.
Prisoners in Liverpool	888	485, or above one-half
Population	443,874	130,000, " about 1 in 3½
Prisoners in Ireland	2,888	2,433, " six-sevenths
Population	5,764,543	4,490,583, " near four-fifths

Thus in Ireland, where the people are under the strictest ecclesiastical discipline and exclusive infallible teaching, the offenders are 6 out of 7 instead of being 4 out of 5.

Prisoners in Scotland of	3,155	1,523 were Catholics.
Population	3,061,329*	

The state of education among offenders, like all else belonging to that class, is beset with trick, deceit, and fraud. They come to prison again and again, and every time they report themselves illiterate, though they have been taught as often to read and write. More schooling, and less oakum-picking, result naturally in quick progress in learning, especially when the learning is of an old lesson, which shows a *good lad or good man*, and obtains a better character from the schoolmaster and the chaplain.

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* Out of this number the Irish-born, according to the census, were 204,003, or 6·6 per cent.

These are among the reasons why so large a proportion of offenders appear to be illiterate, and they will ever continue so until a compulsory system gives *opportunity to all* of the population to learn to read and write, who are not naturally incapable of doing so, and they are rather a considerable number.

In our reformatories and prisons, we teach evil-doers mechanical trades, and thus change them, at the public cost, from unskilled into skilled workers. Offences are profitable to them, they are rewarded, thereby they are enabled to earn higher wages when they come out of prison. "If one has a protector, he escapes from a "murder with only two or three years of imprisonment. The "bagnio at Rome is not a very bad place. The prisoners acquire a "trade there, and on returning to their villages are not dishonoured, "but rather feared, which is often of utility." ("Italy," by H. Taine). Worldly London thus imitates the prison discipline of Holy Rome, and the results are singularly alike. How extremes meet!

The Table L, showing the number of fires in London, is painfully suggestive, that with increasing education and prosperity, people have become more and more careless, or worse.

Incendiarism is a crime second only to murder, in some forms our ancestors regarded it as of equal atrocity. The total of commitments for malicious offences against property of this kind, in five years ending 1856, were 804; 1862, 670; 1866, 1,231.

XII.—*Conclusion.*

The most elaborate statistical tables leave our knowledge of crime still uncertain. The crime which travels on to punishment is but a small part of that which comes within the first grip of the officers of justice, and that is only a fraction of the crime which is *known*, but passes on unheeded, even though it be murder, to which must be added that still largest part of all which is *unknown*, and escapes with complete impunity, it may be for years, or for ever.

The causes of crime in England are, in addition to natural depraved organisation,* the carelessness of people with regard to person and property. People ought to go about armed, as in former times, to resist the ruffian; and they ought, as part of their education, to be trained to defend themselves. When there is danger, they cry "Police," who, in order to answer effectually the cry, had need be 20,000 in London alone instead of 7,000. One ruffian disabled on the spot, is more exemplary than many punished after the slow and very uncertain process of law. There is also the reluctance of people to prosecute, because they think it amiable and virtuous to forgive offenders; and further, there is the expense and trouble of prosecution, and the risk of considerable ill-treatment in the court of justice itself, by barristers and others concerned in the defence. He must be a very enlightened philanthropist, or a very severe and almost malignant person, who will now-a-days seek to punish an offender. Juries will hardly convict in the face of clearest evidence, and judges, partaking of the gentle tendencies of the age, pass trifling sentences often quite out of all proportion to the offences,* and, when all is done, and death, or some long period of penal servitude is the culprit's doom, in comes the Secretary of State, who reprieves and commutes.† A remarkable illustration of this was shown at the Thames Police Court, 23rd February, 1868, where a man was convicted as a begging impostor having been of course *at large*, although within ten years he had been sentenced to no less than twenty-three years' imprisonment—twice for forgery, once seven years, and once fourteen, and thrice liberated on a ticket of leave. This is indeed "making a scarecrow of the law," but old birds are not frightened from their pilfering ways by such scarecrows. Whatever the punishment awarded may be, it should be strictly carried out. Destutt Tracy says—"Les plus puissans de "tous les moyens moraux, et auprès desquels les autres sont "presque nuls, sont les lois répressives, et leur parfaite et entière "exécution."

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* Of which too little heed is taken. Dr. Guy, who brings a rare but indispensable pathological knowledge to bear upon this and kindred subjects, has judiciously treated it, in the Transactions of the Social Science Association for 1862.

It is a failing of the multitude to go to extremes. Formerly, the law and public opinion were needlessly severe, now they are cruelly lax, and the one error is not less cruel than the other. No cause for self-gratulation that we now practise a sentimental surgery. It is a matter of great doubt, who is the more unfeeling officer in the army or navy, he who orders 700 lashes, or he who orders none at all. Instinct under the control of reason is our unerring guide. Obedience to the four instincts of hunger, thirst, lust, resentment (the common attributes of the whole animal creation), is virtuous, degenerating into vice only when alike intemperate, plus or minus. Respecting injuries to ourselves and others, we have been erroneously taught to allow, or manifest, no resentment towards the offender, yet whenever so righteous an instinct has been suppressed nature has been thwarted, evil-doers have flourished, and the world has been going wrong. It is the instinct—the virtuous instinct—of the whole world to impose retributive pain, for pain inflicted wilfully and criminally, just as it is the instinct of the whole world, to slake thirst with drink; no need of drunkenness therefore.* Pain should be the certain punishment for all violent offences against the person, and either pain or some ignominious punishment, as the pillory, is due to malicious offences against property, especially on living animals. In the *Statistical Journal* is a useful notice, and admirable for the courage of the writer, Dr. Mouat, wherein he says, "Flogging is found to be very reforming of the prisoners in India, "and is successful in clearing the gaols," of India. (Vol. xxx.)

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* Our prison discipline itself is a satire on punishment. A troublesome jade in Holloway Gaol works ten hours' *hard labour*, *i.e.*, in picking 3 lbs. of oakum, while a poor honest woman at Rotherhithe must pick more than 6 lbs. to earn *one shilling*; and while a labourer in Sussex earns 12*s*. a-week, a scoundrel in Woking Prison costs 21*s*. a-week, and, while detained in Newgate, he costs 2*l*. a-week, or more than 100*l*. a-year, the salary of many hundred clergymen.

† Two cases of miscarriage of justice curiously illustrate the administration of the law. Pallazzini, an Italian, in 1865 was convicted on clearest evidence of the murder of one Harrington, but at last escaped on the confession of a relation, and on the evidence of a fresh batch of Italian witnesses. Francisco Giardiniere in 1866 was convicted for the murder, on equally good evidence, of a German sailor at Cardiff, but to whom a pardon was granted *on condition of his leaving the country*.

> "As thou dost so shalt thou be done by."
> "It is right to deal with one's enemy according to his wickedness."
> "Word for word and blow for blow, says (heathen) Justice when
> she calleth for payment."

And in confirmation of all this, for the use of stripes so wholesome and so reforming we have not merely the highest authority, *by precept*, but the same highest Authority, *by example.* We are told of One who, and not for the extremest of offences either, "made a "scourge of small cords."

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* "First follow nature, and your judgment frame
By her just standard,"

is as correct a rule of law as it is of criticism. Art, jurisprudence, morals must not depart very far or wide from the canon of nature's instincts, or the savage man will remain more virtuous than the so-called refined and civilised man.

APPENDIX.

A.—*Comparative Quantities of certain Articles Imported into the United Kingdom and Retained for Home Use.*

[000's omitted from the quantities.]

Articles.		Average of 1850-52.	Average of 1860-62.	Increase in 1860-62, on 1850-52.	1865 only.	Increase in 1865 on 1850-52.	1866.
				Per cent.		Per cent.	
Oxen, bulls, cows, and calves	No.	82,	103,	26	283,	245	—
Sheep and lambs	"	192,	311,	62	914,	376	—
Bacon and ham	cwt.	209,	729,	250	713,	242	—
Beef	"	126,	202,	60	244,	94	—
Butter	"	323,	957,	196	1,084,	235	—
Cheese	"	325,	665,	104	853,	162	—
Eggs	No.	109,832,	201,110,	83	364,	231	—
Fish of foreign taking, exclusive of eels	cwt.	92,	350,	279	472,	411	—
Hops	"	2,	117,	4,753	82,	3,313	—
Lard	"	138,	351,	155	137,	1 decrse.	—
Pork	"	154,	178,	17	222,	45	—
Potatoes	"	920,	767,	17 decrse.	807,	12 decrse.	—
Rice	"	839,	2,920,	248	1,942,	131	—
Wheat	"	15,292,	31,795,	108	20,936,	36	23,169
Barley	"	2,946,	6,389,	117	7,818,	165	8,433
Oats	"	3,047,	5,277,	73	7,711,	153	8,628
Maize	"	6,505,	10,937,	68	7,087,	9	15,009
Wheat flour	"	4,282,	6,038,	41	3,883,	9 decrse.	4,963
Currants	lbs.	407,	656,	61	799,	96	736
Raisins	"	218,	281,	29	294,	35	311
Pepper	"	4,512,	5,186,	15	4,713,	4	—
Rum	gals.	2,894,	3,500,	21	3,698,	28	4,127
Brandy	"	1,881,	1,586,	16 decrse.	2,664,	42	3,139
Other foreign and colonial	"	39,	217,	456	370,	849	549
Tobacco, manufactured	lbs.	202,	813,	55	825,	308	879
" unmanufactured	"	27,771,	34,848,	25	38,072,	37	39,621
Wine	gals.	6,354,	9,059,	43	11,994,	89	13,344
Coals for consumption in metropolis	tons	1851 avge. 3,427,317	1861 avge. 4,537,671	1863 4,479,896	1864 4,727,301	1866 avge. 5,240,747	—
Price		16*s.* 7*d.*	19*s.*	18*s.* 2*d.*	20*s.* 1*d.*	20*s.* 4*d.*	—

Note.—Quantity increase in sixteen years, about 50 per cent., price 20 per cent.

B.—*Import and Export Trade of United Kingdom, Home Consumption, and Ratio to Population.*

[000's omitted from the amounts.]

	1851.	1861.	1862.	1863.	1864.	1865.	1866.
	£	£	£	£	£	£	£
l value imports	110,485,	217,485,	225,717,	248,919,	274,952,	271,135,	298,392,
ports	74,449,	125,103,	123,992,	146,602,	160,449,	165,862,	188,828,
Total trade	184,934,	342,588,	349,709,	395,521,	435,401,	436,997,	487,220,
portion of total trade to population	6·8	11·8	12·0	13·5	14·7	14·7	16·2
ntities of some of Principal Articles of Food retained for Home Consumption—							
Cocoa, lbs.	2,978,	3,408,	3,622,	3,712,	3,862,	3,826,	4,607,
Coffee, „	32,505,	35,202,	34,452,	32,763,	31,360,	30,511,	30,944,
Sugar, cwt.	6,234,	8,937,	9,112,	9,208,	8,937,	9,877,	10,600,
Tea, lbs.	53,949,	77,928,	78,794,	85,183,	88,599,	97,835,	102,325,
Malt, bushels	40,337,	46,650,	43,689,	49,073,	51,797,	59,746,	54,445,
Spirits, gals.	23,977,	19,699,	19,128,	19,383,	20,496,	21,006,	22,516,
portion of each Article to Population—							
Cocoa, lbs.	0·1	0·1	0·1	0·1	0·1	0·1	0·2
Coffee, „	1·2	1·2	1·2	1·1	1·1	1·0	1·0
Sugar, cwt.	0·2	0·3	0·3	0·3	0·3	0·3	0·4
Tea, lbs.	2·0	2·7	2·7	2·9	3·0	3·3	3·4
Malt, bushels	1·5	1·6	1·5	1·7	1·8	1·7	1·8
Spirits, gals.	0·9	0·7	0·7	0·7	0·7	0·7	0·7
	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
rage price of British wheat per quarter	- 38 6	- 55 4	- 55 5	- 44 9	- 40 2	- 41 10	- 49 11
ross revenue per head of population	2 2 -	2 9 -	2 8 -	2 8 -	2 7 -	2 7 -	2 5 -

C.—*Amount and Proportion to Population of Deposits in the Savings Banks of the United Kingdom.*

[000's omitted.]

Years.		Population.	Amount of Deposits.	Rate of Deposit per Individual.		
			£	£	s.	d.
1851........	England and Wales	17,928,	27,430,	1	10	7
„	Scotland	2,889,	1,489,	–	10	4
„	Ireland	6,552,	1,359,	–	4	2
„	Total United Kingdom	27,369,	30,278,	1	2	2
1861........	England and Wales	20,062,	36,856,	1	16	9
„	Scotland	3,062,	2,538,	–	16	7
„	Ireland	5,799,	2,153,	–	7	5
„	Total United Kingdom	28,923,	41,547,	1	8	9
1862........	England and Wales	20,228,	35,797,	1	15	5
„	Scotland	3,079,	2,677,	–	17	5
„	Ireland	5,799,	2,088,	–	7	2
„	Total United Kingdom	29,106,	40,562,	1	7	10
1863........	England and Wales	20,445,	39,134,	1	18	3
„	Scotland	3,101,	2,977,	–	19	2
„	Ireland	5,799,	2,217,	–	7	8
„	Total United Kingdom	29,345,	44,328,	1	10	3
1864........	England and Wales	20,663,	39,416,	1	18	2
„	Scotland	3,118,	2,943,	–	18	11
„	Ireland	5,799,	2,155,	–	7	5
„	Total United Kingdom	29,580,	44,514,	1	10	–
1865........	England and Wales	20,881,	40,171,	1	18	6
„	Scotland	3,136,	3,005,	–	19	2
„	Ireland	5,799,	2,052,	–	7	1
„	Total United Kingdom	29,816,	45,228,	1	10	4
1866........	England and Wales	21,100,	39,797,	1	17	2
„	Scotland	3,153,	2,916,	–	18	6
„	Ireland	5,799,	1,791,	–	6	2
„	Total United Kingdom	30,052,	44,504,	1	9	7

D.—*Expenditure on Education, and Number of Children Educated in the United Kingdom.*

Years.		Expenditure from all Sources.	Average Number of of Children at School.	Average Cost for each Child.	Rate per Head of Expenditure on Population.	Proportion to Population of Average Number of Scholars.
		£		£ s.	s. d.	
1854	England and Wales........	717,248	893,555*	1 11	- 8	1 in 46
”	Scotland		67,890†			43
”	Ireland	208,650	253,726	- 16	- 8	26
”	Total United Kingdom....	925,898	715,171	1 6	- 8	38
1861	England and Wales........	1,664,588	773,831*	1 16	1 5	26
”	Scotland		146,104†			21
”	Ireland	306,648	284,726	1 2	1 1	20
”	Total United Kingdom....	1,971,206	1,204,661	1 13	1 4	24
1862	England and Wales........	1,645,129	799,056*	1 15	1 5	25
”	Scotland		149,573†			21
”	Ireland	312,389	284,912	1 2	1 1	20
”	Total United Kingdom....	1,957,518	1,233,541	1 12	1 4	24
1863	England and Wales........	1,633,462	839,764*	1 12	1 5	24
”	Scotland		169,161†			18
”	Ireland	326,152	296,986	1 2	1 1	20
”	Total United Kingdom....	1,959,614	1,305,911	1 10	1 4	22
1864	England and Wales........	1,662,855	854,950*	1 13	1 5	24
”	Scotland		156,184†			20
”	Ireland	322,860	315,108	1 -	1 1	18
”	Total United Kingdom....	1,985,715	1,326,242	1 10	1 4	22
1865	England and Wales........	1,927,208	901,750*	1 16	1 7	23
”	Scotland		155,995†			20
”	Ireland	326,770	311,406	1 1	1 1	19
”	Total United Kingdom....	2,253,978	1,369,151	1 13	1 6	22
1866	England and Wales........	1,993,657	911,450*	1 17	1 8	23
”	Scotland		170,605†			18
”	Ireland	—	—	—	—	—
”	Total United Kingdom....	—	—	—	—	—

* Including Roman Catholic schools for Great Britain.

† Exclusive of Roman Catholics.

E.—*Pauperism.*

England and Wales.

	Population [000's omitted].	Number of Paupers.	Per Cent. to Population.	Cost.	Cost per Individual of Population.
				£	s. d.
1851 (avge. 3 yrs.)	17,965,	955,227	5·3	5,085,166	5 8
1861 (avge. 3 yrs.)	20,044,	881,899	4·4	5,770,477	5 8
1863	20,455,	1,079,382	5·3	6,527,036	6 4½
'64	20,663,	1,014,978	4·9	6,423,283	6 2½
'65	20,881,	951,899	4·6	6,264,961	6 –
'66	21,100,	916,152	4·3	6,439,517	6 1¼
'67	21,320,	631,000	4·4	6,959,841	6 6¼

E.—*Pauperism—Contd.*

The Metropolis.

	Population [000's omitted].	Number of Paupers.	Per Cent. to Population.	Cost.	Cost per Individual of Population.
				£	s. d.
1851* (avge. 3 yrs.)	—	—	—	—	—
1860 (avge. 3 yrs.)	2,802,	91,593	3·26	833,549	5 11½
1863	2,802,	99,568	3·55	868,198	6 2½
'64	2,802,	99,097	3·50	876,290	6 3
'65	2,802,	99,981	3·56	905,639	6 5½
'66	2,802,	104,499	3·50	976,263	6 11
'67	2,802,	122,454	4·37	1,175,368	8 4½

* No return of pauperism in these years for the metropolis alone; the statistics were then given in the ordinary county form.

F.—*Number of Criminal Offenders of certain Classes Convicted in England and Wales.*

Offences.	Total Convicted.	Increase(+) or Decrease(−) per Cent. in 40 Years.	Sentenced to Death.	Decrease per Cent. in 40 Years.	Executed.	Transportation.	Penal Servitude.	Imprisonment above 1 Year to 6 Months.
Shooting at, stabbing, wounding, &c.:								
1817	26	+ 700	26	65	12	—	—	—
'27	35		35		6	—	—	—
'37	41		36		—	2	—	3
'47	118		4		—	42	—	72
'57	208		9		—	11	58	130
Robbery:								
1817	154	+ 145	154	94	19	—	—	—
'27	201		201		17	—	—	—
'37	184		146		—	18	—	20
'47	235		9		—	186	—	90
'57	378		7		—	23	161	187
Burglary:								
1817	374	+23·7	374	98	18	—	—	—
'27	368		368		10	—	—	—
'37	232		223		—	8	—	1
'47	346		5		—	227	—	164
'57	473		6		—	14	188	265
Housebreaking:								
1817	152	+ 273	152	—	—	—	—	—
'27	240		240	—	—	—	—	—
'37	403		—	—	—	294	—	109
'47	506		—	—	—	172	—	334
'57	568		—	—	—	10	171	387
Larceny in a dwelling house:								
1817	143	+72·0	143	—	1	—	—	—
'27	223		223	—	4	—	—	—
'37	159		—	—	—	144	—	15
'47	172		—	—	—	75	—	97
'57	246		—	—	—	—	59	180
Simple larceny:								
1817	6,420	− 98	—	—	—	1,300	—	4,982
'27	8,358		—	—	—	1,897	—	6,293
'37	10,409		—	—	—	1,611	—	8,462
'47	12,778		—	—	—	991	—	11,569
'57*	5,793		—	—	—	—	783	4,846
Forgery, and uttering forged instruments:								
1817	62	+ 196	62	—	18	—	—	—
'27	46		46	—	4	—	—	—
'37	42		—	—	—	31	—	11
'47	121		—	—	—	40	—	81
'57	184		—	—	—	6	80	95

* Summary Jurisdiction Act passed in 1855.

G.—*Indictable Offences Committed in England and Wales, so far as known to the Police; also the Number of Cases Summarily Disposed of under the Head of "Drunkenness," and the Number and Cost of the Police.*

	1857.	Average, 1860-62.	1863.	1864.	1865.	1866.
1. Number of indictable offences known	57,273	51,480	52,211	51,058	52,250	50,549
2. " persons apprehended	32,031	27,085	30,410	28,734	29,049	27,190
3. Class of known offences—						
A. Offences against the person	2,787	2,408	2,966	3,091	3,123	2,861
B. " property with violence	6,471	4,598	5,433	5,022	5,160	5,088
C. " property without violence	43,397	40,861	39,801	39,481	40,383	39,731
D. Malicious offences against property	406	520	762	774	669	[illegible]
E. Forgery and offences against the currency	2,839	1,787	1,869	1,364	1,410	1,399
F. Other offences	1,373	951	1,380	1,326	1,505	1,225
4. Special offences of violence against the person, included in Class A—						
I. Murder	99	110	121	134	135	131
II. Manslaughter and murderous assault	799	817	998	1,033	1,102	983
III. Assaults and inflicting bodily harm	239	198	281	306	295	[illegible]
IV. Common assaults	433	156	163	214	229	[illegible]
V. Assaults on peace officers	369	196	311	249	228	164
VI. Rapes, and attempts at	471	497	552	598	585	579
5. Drunkenness, and drunk and disorderly, summarily determined....	75,859	88,488	94,745	100,067	105,310	104,368
Ratio to population	—	4·7	4·6	4·8	5·	4·9
Number of police	19,187	21,445	22,622	22,849	23,250	23,728
Proportion to population of 1,000	1·0	1·1	1·1	1·1	1·1	1·1
	£	£	£	£	£	£
Cost of the police	1,265,580	1,569,109	1,658,265	1,700,212	1,748,758	1,827,136

Note.—This table includes the metropolitan district.

—Indictable Offences Committed in the Metropolis so far as known to the Police; also the Number of Cases Summarily Disposed of under the Head of "Drunkenness," and the Number and Cost of the Police.

	Average, 1860-62.	1863.	1864.	1865.	1866.
Number of indictable offences known	12,331	14,044	13,534	13,859	14,767
„ persons apprehended	4,817	5,776	5,810	5,747	5,823
Class of known offences—					
A. Offences against the person	357	572	663	643	650
B. „ property with violence	479	609	585	646	657
C. „ „ without „	10,604	11,708	11,196	11,577	12,550
D. Malicious offences against property	28	60	48	38	48
E. Forgery and offences against the currency	632	623	562	444	411
F. Other offences	231	468	485	512	451
Special offences of violence against the person, included in Class A—					
I. Murder	8	11	14	8	9
II. Manslaughter and murderous assault	121	203	189	200	186
III. Assaults and inflicting bodily harm	5	3	2	5	35
IV. Common assaults	58	71	145	150	156
V. Assaults on peace officers	43	72	79	87	59
VI. Rapes, and attempts at	44	64	85	61	76
Drunkenness, and drunk and disorderly, summarily determined	19,731	19,099	18,940	21,105	20,789
umber of police (metropolitan)	7,424	7,961	8,056	8,156	8,277
oportion to population of 1,000	—	2·9	2·9	2·9	3·0
	£	£	£	£	£
st of the police	566,679	611,639	626,289	659,765	685,375

J.—*Number of Persons Committed for Trial in England and Wales.*

				Population [000's omitted].	Ratio per 1,000.
1848	30,349	Average of 7 years 28,123	Average of 7 years 17,983,000	17,357,	1·6
'49	27,816			17,565,	
'50	26,813			17,773,	
'51	27,960			17,983,	
'52	27,510			18,193,	
'53	27,057			18,404,	
'54	29,359			18,616,	
1855*	25,972	—	18,829,000	18,829,	1·4
1856	19,437	Average of 7 years 18,366	Average of 7 years 19,688,000	19,042,	0·9
'57	20,269			19,257,	
'58	17,855			19,471,	
'59	16,674			19,687,	
'60	15,999			19,903,	
'61	18,326			20,120,	
'62	20,001			20,336,	
1863	20,818	Average of 4 years 19,697	Average of 4 years 20,882,000	20,554,	0·9
'64	19,506			20,772,	
'65	19,614			20,991,	
'66	18,849			21,210,	

* Year of the Criminal Justices Act.

K.—*Fires as known to the Police in London, Liverpool, Manchester, and Dublin.*

	Reported to the Metropolitan Fire Brigade.	London.	Liverpool, Year ending 29th September.	Manchester.	Dublin.
	No.	No.	No.	No.	No.
1857	1,115	560	202	194	28
'58	1,114	608	189	174	42
'59	1,084	561	185	205	48
1860	1,056	568	241	223	32
'61	1,188	647	263	261	63
'62	1,303	660	242	206	54
'63	1,404	742	244	228	49
'64	1,487	748	206	275	43
1865	1,502	805	—	—	—
'66	1,338	661	—	—	—

Note—Average of first three years 576⅓, and of the last three years 738, in London.

L.—*Table showing that* Fires *have Increased in London in an undue Ratio to the Increase of Population and of Houses.*

In	1845	there was 1 fire to every	2,990	of population, and	1 to every	395	houses.
„	'50	„	2,673	„	„	347	„
„	'55	„	2,585	„	„	333	„
„	'60	„	2,613	„	„	335	„
„	'61	„	2,370	„	„	303	„
„	'62	„	2,188	„	„	280	„
„	'63	„	2,064	„	„	265	„
„	'64	„	1,980	„	„	255	„
„	'65	„	1,900	„	„	250	„

Note.—Increase from 1845 to 1865, nearly 50 per cent.

Table showing the Increase in the Number of Fires *recorded as of "Suspicious, Doubtful, or Unaccounted for" Origin.*

							Per cent.	
In	1852	there were	923	fires, of which	318	or	34½	were "suspicious," &c.
„	'53	„	900	„	324	„	36	„
„	'62	„	1,303	„	507	„	38	„
„	'63	„	1,401	„	501	„	36	„
„	'65	„	1,502	„	618	„	40½	„
„	'66	„	1,338	„	700	„	52¼	„

Note.—Average of *first* three years 36; latter three years 43, or as 6 is to 7⅙.

MISCELLANEA.

CONTENTS:

	PAGE
I.—Statistics of the Church of of England, 1867	331
II.—Irish Holdings, Large and Small	335
III.—Labour and Capital in America	337
IV.—Wheat Crops of 1868 and Former Years	339
V.—Trade of the United States	343
VI.—Parliamentary Constituencies in 1832 and 1868	346
VII.—Discrepant Criminal Statistics	349

I.—*Statistics of the Church of England*, 1867.

We obtain the following useful analysis from a recent number of the *Times*:—

"Before passing in review the present condition of the Church of England it is bare justice to glance at its recent state. Within the last fifty years the 11,000 Parochial preferments in England and Wales were served by some 10,000 clergymen, of whom less than 5,000 were Incumbents and more than 5,000 were Curates, usually resident on one and in full charge of another living. One industrious fraternity of three brothers had the full charge of fifteen livings. The Act forbidding the Clergy to farm was aimed at a numerous class who literally galloped through their Sunday services, and farmed with their own hands on the other six days. Within ten years an Incumbent officiated as minister on Sundays in the village church and looked after the horses of visitors at the village inn for the rest of the week.

"On the elevation of Bishop Blomfield to the See of London from that of Chester (held on account of its poverty in plurality with the rectory of Bishopsgate, London), the enormity of the system of Plurality became very clear to his mind, and the Bishop carried through Parliament a series of measures calculated to provide a resident minister with such assistance as should secure effective parochial superintendence in each parish. This measure, to which all Church reform has been, and will be, subsidiary and supplementary, is the Act of 1837, prohibiting any Parochial preferment, with few and insignificant exceptions, from being held after the first vacation with any other cure of souls. Bishop Blomfield rightly regarded this measure as essential to the continued existence of the Church of England. If one man were now Dean of Carlisle, Rector of St. George's, Hanover-square, Vicar of Hillingdon, and of another rural parish, and Chaplain-General of the Forces, the existence of the Church of England would not be worth a year's purchase.

"The effect of that measure is now, after thirty years, coming into full operation, and an analysis of the main divisions of the

Church Livings as regards Patronage and Population may assist in determining the relative condition of the several classes of livings with respect to the effective parochial superintendence of the populations within them.

"The *Bishops and Chapters* take precedence of the parochial clergy. The aggregate revenue of the Bishops is 152,200*l.* a-year, so divided that instead of the See of Durham possessing 30,000*l.* a-year and the See of Rochester 700*l.* a-year, as in 1835, each Bishopric has an income fixed by Parliament on a graduated scale, of which the lowest grade is 4,200*l.*, and two of the least paid Bishops have most difficult dioceses.

"The aggregate revenues of the *Chapters* are probably 250,000*l.* a-year, but there are no means of accurately ascertaining their present position. The incomes of the *Deans* certainly range from 2,000*l.* to 1,000*l.* a-year, and those of the Canons from 1,000*l.* to 500*l.* a-year. The cost of the *Cathedral establishments* probably ranges from 12,000*l.* a-year at Durham to 400*l.* a-year at Llandaff. About one-fourth of the Chapters continue to renew beneficial leases; the rest have put an end to that waste of Church property.

"The *Parochial Benefices* are 12,888 in number, with 4,981 curates, so that the number of parochial clergy is 17,869. The alphabetical list contains 23,000 names, but of these many have independent incomes, and many are engaged in educational pursuits, and some do not exist except in that list. Probably 20,000 would closely approximate to the whole number of clergy of the Church of England.

"The patronage of 6,403 out of these 12,888 livings is *private (saleable) patronage.* It belongs to 4,080 persons, of whom 1,046 are clergymen, for the most part incumbents resident on the preferments in their own gift.

"The patronage of 6,485 out of these 12,888 livings is in *public (unsaleable) patronage*, and may be divided conveniently into six classes. There are 967 Livings in the gift of the *Crown*—2,088 in the gift of the Bishops,—911 belong to the Chapters,—851 to the Colleges,—998 are in the gift of parochial rectors and vicars, and 670 livings belong to hospitals, schools, public bodies, Simeon's and other trustees, without power of sale.

"The 12,888 benefices are within some 16,000 census districts. The population decennially decreases in 8,400 districts, and in 7,600 districts decennially increases, the former being agricultural, and the latter urban and mining, manufacturing, or shipping districts.

"The relative position of the Parochial clergy with the people will therefore be best ascertained by arranging the 12,888 preferments in the order of their respective populations, taking the limits of 8,000, 4,000, 2,000, and below 2,000 persons as the boundaries of four divisions.

(1) "The Livings with populations above 8,000, are 465 in number, with 689 curates under these 465 incumbents; so that there are 1,154 clergy in charge of the five millions of people in these parishes. This affords one clergyman to about 4,300 persons, or 700 houses, *supposing that the whole population are members of the Church of England.*

(2) "The Livings with populations between 8,000 and 4,000, are 882 in number, with 932 curates, so that there are 1,814 clergy in charge of the five millions of people in these parishes. This affords one clergyman to about 2,750 persons, or 500 houses, *on the same supposition.*

(3) "The Livings with populations between 4,000 and 2,000, are 1,143 in number, with 715 curates; so that there are 1,858 clergy in charge of the 3½ millions of people in these parishes. This affords one clergyman to about 2,000 persons, or 350 houses, *on the same supposition.*

(4) "The Livings with populations below 2,000, are 10,398 in number, with 2,645 curates, and the population in their charge comprises 7½ million persons. This affords one clergyman to about 600 persons. But in this class the element of area, which is absent in three other divisions, requires to be taken into account. A mountain parish, with a sparse population and bleak country and no society, may be harder work than the charge of a densely populated district of 700 contiguous houses, with ready access to libraries and all the advantages of civilisation.

"No incumbent in either of the *first two classes* can (after next year) have less income than 300*l.* a-year except by neglect of his private patron, for the Ecclesiastical Commissioners have increased to 300*l.* a-year all livings with populations above 4,500, and have pledged themselves next year to extend this limit to all populations above 4,000, and have offered to meet with grants of an equal amount augmentations from private sources, providing one-half of the amount necessary to raise to 300*l.* a-year the incomes of any such livings in private patronage. This *minimum* of 300*l.* a-year is probably the lowest income which, viewed in connection with better preferments, would secure a continuous supply of candidates for orders. The incomes of the 2,336 curates in the first three classes, probably average 120*l.* a-year; those of the 2,645 curates, under the 10,398 incumbents in the fourth division, are now probably closely approximating to 100*l.* a-year.

"When the limits of 4,000 population have been reached next year by the Ecclesiastical Commissioners, the mode in which any further resources at their command may be appropriated will be unfettered, except so far as Parliament gives priority on all their income to the parochial districts whence that income may accrue. But, as their grants will then reach a value of Ten Millions of money, and their resources are limited to the amount derivable from the better management of Church Property, the revenue still available must be of moderate extent, as well as dependent on the gradual extinction of lives upon which leaseholds are held, and on the expiration of leases for terms of years; such as that of the Finsbury Prebendal Estate about to expire. Each renewal of beneficial leases necessarily postpones the realisation of the full value of the Church interest in the property the subject of such renewal.

"The Patronage which, as regards the whole 12,888 livings, is divided into nearly equal portions, 6,403 private, and 6,485 public patronage, is divided very differently in the livings of the *first three* divisions. The whole number of Livings in the first three classes, with the population of 13½ millions, is 2,490, and of these only 657 are in private (saleable) patronage. The remaining 1,833 are divided into 199 belonging to the Crown, 560 in the gift of the Bishops, 180 in that of the Chapters, 69 in that of the Colleges, 480 in that of parochial rectors and vicars, and 345 in that of hospitals, schools, and other bodies, and trustees without power of sale. It follows that 5,746 of the 10,398 livings in the *fourth or agricultural class*, are in private patronage; and that 1,528 livings in the gift of the Bishops, 768 of the Crown, 782 of the Colleges, 731 of the Chapters, 518 of the parochial rectors and vicars, and 325 in the gift of hospitals, schools, and other bodies, and trustees without power of sale, make up the 4,652 livings in public patronage in this class.

"As before stated, the livings in the first two classes have a *minimum* income of 300*l.* a-year. The third class, which is in every other respect like the first two classes, has not been reached in that form by the Ecclesiastical Commissioners, and a large proportion of the incumbents have incomes below that *minimum.* Some of these cases are those of incumbents of Peel districts, created in 1843, with incomes of 150*l.*, who have in the meanwhile caused a church and schools to be erected, and are in expectation of the *minimum* of 300*l.* a-year being gradually extended from the limit of 4,000 population to that of 2,000 population.

"The *fourth class* is too far from any likelihood of unconditional aid from the Ecclesiastical Commissioners for its claims to be taken into consideration at the present time.

"But the *fourth class* will not, therefore, be altogether left in its present state. The Crown has taken steps for raising the incomes of the poorer livings in its gift; the Colleges have long been gradually improving the incomes of the college livings; the recognition of local claims prescribed by Parliament, will take effect on a very large proportion of the episcopal and capitular livings. For, those bodies being endowed largely with rectories, a very large number of livings in their gift have local claims. The livings in the gift of the rectors and vicars, and of hospitals and trustees, are alone unprovided for as regards the public patronage.

"But the 5,746 livings in *private patronage*, present a greater difficulty. They are private property; and, although property has its duties as well as its rights, no legislative interference may be admissible. All that can be done, probably, is to keep the subject prominently before the public mind. Something would be done if leaders of public opinion in Church matters would gracefully set the example of improving the poor livings in their own respective gifts. Much has been done by the late Duke of Northumberland, the late Earl Fitzwilliam, and by many living landowners whom it would be invidious to mention, and much is continuously being done in every part of the kingdom; but with every exertion, it will be long before the poverty of the clergy, in consequence of the impropriation of rectorial tithe, will cease.

"It would be tedious to analyse the 5,746 livings in *private patronage;* but, as the county of York is said by its topographers to be an epitome of England for its variety of soil and produce, so the patronage in the diocess of York may be taken as representing the private patronage of the whole kingdom. There are 575 livings in the diocess, of which 276 are in private patronage. There are 84 of these with incomes of 300*l.* a-year, and the remaining 192 extend through all four classes of livings. There is one with 8,000 and one with 4,000 inhabitants, and each has an income of 150*l.* a-year. There are eleven livings in the third class, with 2,000 population, with incomes of which two exceed 200*l.* a-year, five each exceed 100*l.* a-year, and four of which each have incomes of less than 100*l.* a-year. One of these, with 2,900 inhabitants, has an income of 50*l.* a-year.

"The remaining 179 livings, with incomes under 300*l.* a-year, all fall within the fourth class of less than 2,000 inhabitants. Of this number twenty-four have incomes of more than 250*l.* a-year, twenty-two are between that amount and 200*l.* a-year, eighty between that and 100*l.* a-year, and there are fifty-nine livings with incomes of less than 100*l.* a-year. Of these last twenty have incomes of less than 60*l.* a-year, and the average population of these twenty livings exceeds 200 persons. It would be well that some *minimum* of income, however moderate, could be made indispensable for parochial incumbencies. So long as the livings of the Crown, Bishops, Chapters, and Colleges were equally wretched, the private patronage passed unnoticed; but as these four classes reach a higher *minimum* the fact that a yearly increasing proportion of clerical poverty arises upon the livings in private patronage becomes more obvious.

"Thirty years have elapsed since the First Minister of the Crown, in no unkindly spirit, advised the Bishops to set their houses in order. Bishop Blomfield accepted the advice, and at the close of a generation much has been done in the right direction. As the Quaker dress is almost indistinguishable, because the public taste approximated to it by discarding swords and pink-heeled shoes and peach-coloured coats, so it may be that the Wesleyans may be rendered indistinguishable by the energy of the clergy in the discharge of duties which the Wesleyans only undertook in consequence of the careless neglect of the Church of England."

II.—*Irish Holdings, Large and Small.*

FROM the *Pall Mall Gazette*:—

"A recent Parliamentary Paper shows the number and size of large and small agricultural holdings in Ireland as they were shortly before, and soon after, the potato famine, and as they are at the present day. At the census of 1841 there were in all 691,202 separate holdings, counting none of less extent than one acre; nearly one-half, 310,436, were under five acres; and more than one-third, 252,799, were over five acres, but under fifteen; fully five-sixths, 563,235, were therefore holdings under fifteen acres each. There is nothing to show the average area of these in 1841; probably they did not exceed five acres apiece. The famine of 1847-48, and its consequent exodus, reduced the number of holdings by 120,000, for in 1851 the total returned was 570,338; but while the small ones, that is under fifteen acres, had greatly diminished, the larger ones had increased. Of those under five acres, 222,353 had disappeared, leaving only 88,083 of that class. The next in size did not suffer so much, though the decline here was nearly 61,000, leaving 191,854 of this second rank in the ascending scale. Different was the fate of the larger holdings. Farms of an intermediate size nearly doubled; the 79,342 which ranged between fifteen acres and under thirty in 1841, had in 1851 risen to 141,311. More remarkable was the increase at the top of the scale. Farms of thirty acres and upwards, which in 1841 were returned at 48,625, had increased more than 200 per cent. in the decade, as they were enumerated at 149,090 in 1851. Coming to 1867, we find, on comparing the figures of that year with 1851, that the changes in the interval have been unfavourable to the small cultivator alone. Thus the smallest holdings—one to five acres—were further reduced by 10,000, the second class holdings by 18,000, while the intermediate ones were nearly 5,000 short of the number returned sixteen years previously; at the same time, farms of thirty to one hundred acres, have increased by 6,504, and the largest, *i.e.*, those of one hundred acres and upwards, by 2,812. These changes have been greatly beneficial to the economic condition of Ireland—of that there is abundant proof; but they have also doubtless been accompanied with a certain sense of injury on the part of the poor agrarian population. The mean acreage of each holding at the present day appears to be as stated hereunder:—

Acres in 1867.	Average Size in Acres.	Arable Land in Acres.
Above 1 and under 5	3½	3¼
„ 5 „ 15	10½	9½
„ 15 „ 30	22¼	19¾
„ 30 „ 100	54½	46
100 and upwards	258¾	160¾

"The poor tenant devotes nearly all his land to arable production, but the richest cultivator farms less than two-thirds on that system. Another contrast presents itself in the fortune of the poor and the opulent farmer in Ireland, when the value of the live stock possessed by each in 1841 and in 1867 is collated. On the smallest farms the live stock between 1841 and 1851, fell *one-third* in total value, and though it has appreciably increased since, it has never, as the subjoined table shows, reached the point at which it stood before the famine.

Average Value of Live Stock on Holdings above One and under Five Acres.

	Total.	Special Value included in Total.		
		Horses.	Cattle.	Pigs.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1841	9 17 6	2 2 10	5 12 5	1 – 6
'51	6 14 2	1 3 5	4 6 6	– 12 2
'61	7 6 7	1 4 3	4 10 5	– 13 4
'67	8 1 3	1 4 6	4 17 8	– 16 4

"Comparing the extremes, the total value of stock on these holdings is 1*l.* 16*s.* 3*d.*, or 18 per cent. less than in 1841. Moving up one step, we find things rather improved, due plainly to the increased worth of the cattle.

Average Value of Live Stock on Holdings above Five and under Fifteen Acres.

	Total.	Special Value included in Total.		
		Horses.	Cattle.	Pigs.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1841	22 11 6	5 12 6	13 3 1	1 14 10
'51	18 7 8	3 2 5	13 1 9	1 – 7
'61	21 7 1	3 7 10	15 – 8	1 2 –
'67	23 6 6	3 3 7	16 6 2	1 5 8

"On all holdings above the lowest sized, the sheep count for more value than the pigs. In this table they would enter for the last year at 1*l.* 17*s.* 10*d.*

"The farms above thirty acres each were not counted in 1841, but the comparison may be instituted in the following shape:—

Holdings in Acres.	Number of Holdings.	Value of Live Stock per Holding.	Year.
		£ s. d.	
30 to 100 .... 100 and upwards	48,625	142 16 –	1841
30 to 100	126,537	106 12 2	'67
100 and upwards	31,869	336 19 10	

"On abstracting the figures of the return, we find the aggregate value of live stock in 1867 to have been 24,230,000*l.* for farms of thirty acres and upwards. The contrast may be thus expressed: Ireland has more than *thrice* the number of large farms she had in 1841—158,406 against 48,625; and the value of the live stock per large farm is 10*l.* more than it was then. The aggregate value of the live stock on the large farms of 1841, was but 6,943,000*l.*

"We have restricted ourselves to exhibiting the antithesis of fortune which a generation has witnessed between the large and the small Irish cultivator, though there are some other useful statistics in Mr. Blake's return relative to agricultural holdings in that part of the kingdom."

III.—*Labour and Capital in America.*

The following article appeared under this title in a recent issue of the *Manchester Guardian*, as copied from the *New York Commercial and Financial Chronicle* of the 18th July:—

"The agitation in the labour market and the increasing difficulties between employers and workmen constitute one of the gravest features of the times. It would seem, too, that the disagreement, instead of becoming less marked, is growing wider, a war of classes having been inaugurated, under circumstances calculated to exercise a decisive influence upon the future of our State. It is a serious misfortune in this country that these difficulties are frequently fostered and stimulated by political parties with a view to partisan aggrandisement. It was this political influence that led Congress deliberately to sanction the eight-hour system by reducing the hours of labour for all persons in the Government employment 20 per cent. Under the same influence one of the two great parties which divide the nation has lately adopted as its own the platform of the Working Men's National Convention—a platform the enforcement of which would sunder all the existing relations between capital and labour, and shut out American industry from all competition with foreign nations. It is fortunate for the country, however, that there is a law higher and more immutable than the parchment edicts of human government, and that this law will eventually work a cure, since by its terms it is ordained that the only means for increasing the wealth of individuals and nations is by increased production and economy of savings. State and Federal Governments may legislate to reduce the hours of labour, yet they cannot but for a limited time give the workmen ten hours' pay for eight hours' work—a man cannot long receive more than he earns. The only effect this edict of Congress can have, is to temporarily benefit the workmen at the expense of the taxpayers, and to set a bad example, which is eagerly quoted by ignorant persons as an endorsement of a vicious principle. The final result, however, will be disastrous to the labourer when necessity brings about the adjustment between the employer and the employed. The strike in the building trade in this city illustrates the whole subject. The journeymen bricklayers, who have heretofore been receiving $5 a-day for ten hours' work, now demand that they shall receive $4 50 c. a-day for only eight hours' work; in other words, they demand a reduction of 20 per cent. in the hours of labour, and only consent to a reduction of 10 per cent. in wages. The employers profess that they are unable to agree to this demand. They state that they entered into contracts for the work which were calculated at the existing scale of prices; that while the rate of wages is constantly rising, the amount of work is diminished. Formerly, 2,000 bricks a-day were the standard for a day's work. Now a 'trade rule' prevents the workmen from 'setting' more than 1,000 bricks a-day. The employers also complain that they are forced to pay the same wages to good and bad workmen, and that the trades society also attempts to prevent them from taking apprentices, and even goes so far as to prevent boss masons from working on their own buildings unless they are members of the Bricklayers' Union.

"As the employers were unable to accede to the demands of the workmen, a 'strike' was the result. The building trade in this city is therefore at a standstill at the most favourable season. The employers, in self-defence, formed a Master Builders' Association, and are making every exertion to obtain men from other cities to work for them. The bricklayers' unions, on the other hand, are not idle. They watch the steamboat landings and railroad depôts, to induce the workmen from the interior to turn aside, and are sustained in funds by the other trades. The Plasterers' Society, for instance, on Wednesday last, gave the bricklayers $3,000 to support them while idle. The fact that a single society could afford to give away so large a sum, proves that the trades in this city do not suffer severely from the hard times. The plasterers, it will be remembered, already work on the eight-hour system, and receive $5 a-day—good, bad, and indifferent alike. Trade societies in other towns are also forwarding money to the New York bricklayers.

"In this struggle the interests of the community are all on the side of the employers. This is true even of the working men who sustain the 'strike.' The high rents had tempted a large amount of capital into the building trade, and within the last year so many new houses were built in New York and Brooklyn that there was an important reduction of rents. There were more houses than tenants, and rents had to come down. There was a prospect that this reduction would continue, and that in another year or two rents would be still lower. But the bricklayers' strike stops all this. If their demands are acceded to, there must be a large addition to the cost of house building, and a further advance of rents in place of a decline. It would not be difficult to show that the industrial classes must suffer more from high rents than any other; yet we find them sustaining a movement that is calculated to place them at the mercy of landlords. Their interests are really identical with those of the master builders, who are fighting for cheaper rents. Other disturbing elements are at work. Last week a plasterers' national convention at Chicago took measures to organise a movement for next year, placing all the plasterers of the United States on the 'New York standard,' that is

$5 a-day for eight hours' work. Curiously enough this movement is undertaken at the instigation of the trade in New Nork. The plasterers in the interior work more hours and for less pay than their New York brethren, and, as a consequence, they crowd to this city to enjoy the superior advantages offered. This overstocks the market for this kind of labour, and the plasterers of this city, to prevent competition, tax themselves to support country workmen, and to pay their expenses back to their homes. Thus, the present high wages and short hours are of no essential benefit. The means contemplated to remedy this tendency of the natural laws of supply and demand to overthrow the plasterers' eight-hour system, embody a blunder of the worst kind. It will be impossible to establish the New York rate of wages as a standard for the entire country, because the expenses of living, which always rule the rates of wages, are less in the country than the city. The Amalgamated Engineers, the most perfectly organised trade in the world, attempted to establish a uniform standard of wages, but failed. The matter is now left to the local societies. We may confidently anticipate that the plasterers will meet with no better success. The strike in the mining regions in Pennsylvania is for eight hours a-day and an increase of wages. A compliance with this demand is out of the question, and there is a suspension of work. Thus, the only positive result of the effort will be to increase the price of coal to the consumer. Coal must advance while production is at a standstill, and if the men receive more pay for less time, prices must go still higher. Thus we see that rents and coal, the most important items of household expenditure, are advanced by the direct agency of the very classes who have the greatest interest in reducing them. The instances might be easily multiplied of the mischievous tendencies of the present labour agitation. That the eight-hour movement is factitious, and not demanded by any real necessity, is proved by its effects upon the plasterers' societies; and also by a demand made a few days ago by the workmen in the Government dockyard at Bangor, Maine, to be allowed to work ten hours for a proportionate increase of wages. But it is only when we consider the condition of the country at large that the fallacy of the eight-hour movement is fully apparent. At a time when the whole American people are required by an inexorable necessity to produce more and economise more than ever before, as the only means of recovering the enormous losses of the civil war, there is sprung upon them a movement which, by checking industry and offering a premium to idleness, must arrest progress and postpone the era of returning prosperity. It is, therefore, of the highest interest to all that the employer should persist in refusing to comply with this demand, and we trust he will be enabled to do it successfully."

IV.—*Wheat Crops of* 1868 *and Former Years.*

THE following excellent letter was addressed to the *Times* on 14th August last, by Mr. J. B. Lawes, of Rothampsted, Herts, so well and favourably known for his long series of practical investigations relative to the effect of different manures on the growth of wheat. It is not often that the public have placed before them evidence of produce so entirely scientific as the following:—

"A season in which the *wheat crop* is in this district (Herts) either harvested or ready to be harvested in the month of July is of very rare occurrence. Such, however, has been the case in the season just passed; and such was the condition of the crop that most of it was fit to be carted direct from the land to the thrashing machine; while the grain was so dry that it could be converted at once into flour of high quality without admixture with old or foreign corn. Indeed, we must go back for about half a century to find a season characterised by dryness and high temperature to the same extent as that of 1868.

"In my letter on the yield of my experimental Wheat crop, and that of the country generally, in 1867, published in the *Times* of 5th October, I expressed my fear that the crop of the country would prove to be a very deficient one. Subsequent experience has, unfortunately, fully confirmed the truth of my estimate. I now propose to give the results obtained this year (1868), on the same plots in the experimental wheat field on which those given each year, for the last five years, were obtained. The crop of 1868 is the *twenty-fifth* of wheat in succession on the same land; and, during the last seventeen years, the same description and amount of manure have been applied on the same plot each year. In every other respect the treatment has been the same over all the plots each year, and as nearly as possible the same year after year. The variation in the produce from year to year may, therefore, be considered as almost entirely due to the varying characters of the seasons. The whole field comprises about fourteen acres. Plots 3, 2, and 9 are nearly one-third of an acre each, and plots 7 and 8 are each nearly two-thirds of an acre.

"The following are the results, and there are given, side by side, those obtained on the same plots in 1867, 1866, 1865, 1864, and 1863, also the average on each plot over the sixteen years, 1852-67 inclusive.

Plots.	How Manured each Year.	Harvests. Bushels of Dressed Corn per Acre.						Average 16 Years, 1852-67.
		1863.	1864.	1865.	1866.	1867.	1868.	
3	Unmanured	17¼	16½	13¼	12⅛	8⅞	16⅝	14⅞
2	Farm-yard manure	44	40	37⅛	32⅝	27¼	41¾	35⅛
7	Artificial manure	53⅝	45¾	40¼	30	22¼	39⅞	35⅞
8	"	55¾	49⅞	43⅝	32⅛	30⅛	46½	38¼
9	"	55½	51	44	32½	29⅛	47¾	35¾
	Means of 7, 8, and 9	55	49	42⅝	31½	27¼	44¾	36⅝
	Means of 3, 2, and 7, 8 and 9	38¾	35⅛	31	25⅝	21¼	34⅜	28⅞

Plots.	How Manured each Year.	Harvests. Weight per Bushel of Dressed Corn. lb.						Average 16 Years, 1852-63.
		1863.	1864.	1865.	1866.	1867.	1868.	
3	Unmanured	62·7	62·0	60·6	61·3	56·1	61·0	57·4
2	Farm-yard manure	63·1	62·5	61·5	61·7	61·4	61·6	59·9
7	Artificial manure	62·5	63·1	61·6	61·0	61·0	61·1	59·2
8	"	62·3	63·5	61·4	60·1	60·7	62·0	58·7
9	"	62·1	62·6	61·1	60·6	59·9	61·1	58·1
	Means of 7, 8, and 9	62·3	63·1	61·4	60·6	60·5	61·4	58·7
	Means of 3, 2, and 7, 8 and 9	62·7	62·5·	61·2	61·2	59·4	61·3	58·7

"It is seen that, under each of the very widely different conditions of manuring, the crop of 1868 is not only very much in *excess* of that of 1867, but it is also very much in excess of the average of the preceding sixteen years. The permanently *unmanured* plot gives nearly twice as many bushels per acre as last year; in fact, taking into account the higher weight per bushel, it gives, in reality, more than twice the quantity of grain. The *farm-yard* manure gives 14 bushels per acre more than last year, or fully one-half as much again, and nearly 7 bushels more than the average of the previous sixteen years. The highest amount of produce obtained by either of the *artificial manures* this year is nearly 48 bushels, against about 30⅓ bushels last year, which is equal to an increase of about 17½ bushels, or more than two quarters per acre. Taking the mean result of the three artificial mixtures, we have nearly 45 bushels per acre this year, against only 27⅓ bushels last year, and 36⅝ as the average of the sixteen years. Lastly, taking the mean result of the unmanured, the farm-yard manured, and the artificially manured plots, we have 34⅜ bushels this year, against 28⅞, the average of the preceding sixteen years.

" The following table shows the amount of produce obtained this year, in four fields on my farm taken in the course, and which together comprise 74 acres. For comparison, there are also given the amounts obtained in various fields in former years, as quoted each year in the *Times*.

Fields.	Bushels of Dressed Corn per Acre.					Pounds per Bushel.
	1863.	1865.	1866.	1867.	1868.	1868.
1	63	38	40	32	43¼	64
2	—	48	42	35	46¾	61¼
3	—	48	46	36½	50¾	61⅛
4	—	51	—	—	51	63⅝
Means …………	—	46¼	42⅔	34½	48	62½

" Here, again, there is evidence of a much higher yield per acre in 1868 than for several years past. The weight per bushel is also considerably above the average on my land.

" The conclusion I draw from the above figures, taken in connection with the proved accordance between the fluctuations in the amount and quality of the Wheat grown in my experimental field and those in the crop of the country generally, for many years past, is that the wheat crop of 1868 is much above the average both in quantity and quality on all soils of moderate depth and tenacity. For shallow and light soils the season has, however, been too hot and dry. But any loss from this cause will be more than counterbalanced by the fact that it is on the better wheat soils that the excess over the average will be the greatest. It is, moreover, believed that the area under the crop in the United Kingdom is considerably over the average. The exact amount of the excess of area cannot at present be safely estimated; but we may hope soon to have reliable information on the point in the forthcoming official agricultural returns.

" I fully believe that correct and early information, not only as to the number of acres under each crop, but also, as far as possible, as to the yield, would be quite as beneficial to the farmer as to the importer, the merchant, and the public in general. Some years will, however, probably elapse before we are furnished with such means of calculating the probable prospects of the year from the date of one harvest to that of another. Perhaps, therefore, I may venture to hazard a few remarks, founded upon such data as we have at command, indicating the probable average price of wheat in our markets between this time and the harvest of next year.

" Mr. Caird, whose opinion on subjects connected with agriculture stands deservedly high, estimates an *Average Crop of Wheat* in England at the present time at 28 bushels per acre. Taking the average yield each year, of the unmanured, the farm-yard manured, and the artificially manured plots in my experimental field referred to above, and then the average of the figures so obtained for the last sixteen years, the result indicated is about 28¾ bushels. The average *Gazette* price of wheat over the same period is about 55*s.* per quarter. In the following table are given the *average produce* of the three different conditions of manuring in each of the last six years, and the average of the sixteen years; also the *average price* of wheat over each harvest year (1st September to 31st August, excepting in 1868 to 7th August only), and the average price for the previous sixteen years.

(1) *Average Bushels of Dressed Corn per Acre.*

1863.	1864.	1865.	1866.	1867.	1868.	Average, 1852-67.
38¾	35⅛	31	25½	21¼	34⅜	28⅞

(2) *Average* 'Gazette' *Prices of Wheat, September* 1—*August* 31.

1863-64.	1864-65.	1865-66.	1866-67.	1867-68.*	1868-69.	Average, 1852-67.
s. 41	*s.* *d.* 40 1	*s.* *d.* 46 6	*s.* *d.* 61 7	*s.* 69	—	*s.* 55

* Forty-nine weeks.

"A glance at the table shows that, whenever the produce was above an average, the average price up to the next harvest was below an average, and *vice versâ*. A little further examination shows a closer actual numerical relationship between the rise in produce and fall in price, and the fall in produce and the rise in price, than might have been anticipated. Thus the crop of 1867 was about 26 per cent. *below* the average of the sixteen years, and the price up to the present time has averaged between 25 and 26 per cent. *above* the average of the same period. The crop of 1866 was nearly 12 per cent. *below* the average, and the price averaged about 12 per cent. *over* the average. In 1865 the crop was between 7 and 8 per cent. *above* the average, and the price during the succeeding twelve months was about 15½ per cent. *below* the average. The crop of 1864 was between 21 and 22 per cent. above the average, and the average price was about 27 per cent. below the average. In 1863-64 the agreement is much less marked. The produce of 1863 was about 34 per cent. *over* the average, and the average price, which was 41*s.*, was only between 25 and 26 per cent. *below* the average. A fall in price in proportion to the increase of produce would have brought us down to little over 36*s.* per quarter. But when the price of wheat reaches so low a point as about 40*s.* per quarter farmers generally hold back larger stocks, and also use wheat more freely for the feeding of animals.

"The above mode of calculation, if applied without reservation to the produce of the harvest of 1868 would indicate an average price up to next harvest of less than 50*s.* per quarter. Assuming the absence of disturbing causes, such as war, the price would, under ordinary conditions in regard to other agricultural produce, and with moderate supplies from abroad, probably, in fact, range below that amount. We have, however, short crops of barley, oats, hay, and potatoes, scarcely any grass, and the prospect of a very deficient crop of roots. It is obvious that these circumstances must have a considerable influence on the price of wheat, and they will doubtless prevent it falling to so low a point as a yield of probably about 20 per cent. over the average would otherwise lead us to expect."

To the preceding facts from Mr. Lawes, we add the following summary of the very useful and systematic inquiries instituted in each season by the *Gardeners' Chronicle*:—

“ The columns of the *Gardeners' Chronicle* of 1st August, 1868, are full of harvest reports. The result, according to these communications, is that there never probably was a better crop of wheat on all good wheat soils than that of 1868; and that the average of the whole crop will probably prove higher than it has done for many seasons. The earliest-sown barley and oats on good deep soils are also good, but the instances of this kind are so few that they are altogether lost in the general experience of failure. Peas and winter beans coming earlier to harvest are pretty well. Peas, indeed, may be considered a better crop than usual; but spring sown beans are a failure everywhere. Among root crops mangel wurzels, where sown early on well-cultivated loams, are still standing the drought, and may yet produce a crop, but swedes and turnips were never before such a complete failure; and adding this to the very light crop of hay which everywhere has been cut, the prospects of winter food for live stock are very poor indeed. Of the potatoe crop, which is at length generally suffering from the drought, we have various reports, generally, however, agreeing in this, that though still sound and free from disease, the tubers are small. The following is the tabular result of an examination of the several reports:—

1868.	Total.			Total.	Percentage.		
	Average.	Under Average.	Over Average.		Average.	Under Average.	Over Average.
Wheat	67	13	126	206	32	7	61
Barley	54	140	5	199	27	70	3
Oats	37	138	2	177	19	80	1
Peas	85	8	52	145	58	6	36
Beans	22	137	—	159	17	83	—
Root crops	9	192	—	201	5	95	—
Potatoes	93	101	4	198	52	46	2
Hay	22	180	2	204	12	88	—

V.—*Trade of the United States.*

From the *New York Commercial Chronicle*, 30th May:—

“ The last monthly report of the Director of the Bureau of Statistics enables us to present a tolerably accurate statement of the foreign trade of the country for a series of months past. The returns for the later months are subject to slight modification upon the receipt of the monthly schedules from the Pacific and some of the minor ports; but these changes will not materially affect the general result. The imports for each month of 1867 have been as follow:—

Imports into the United States in 1867.

	Merchandise.	Gold and Silver.	Total.
	$	$	$
January	26,823,449	1,111,018	27,934,457
February	34,979,685	686,227	35,665,942
March	32,174,819	605,666	32,780,485
April	38,939,485	644,038	39,583,523
May	35,285,742	1,320,000	36,605,832
June	31,232,271	615,033	31,847,304
July	33,237,791	1,197,893	34,435,684
August	33,325,464	1,175,831	34,501,295
September	30,572,235	1,199,606	31,671,841
October	29,377,062	1,262,189	30,639,251
November	25,485,753	329,203	25,814,956
December	20,483,321	984,924	21,468,245
Total imports	—	—	383,048,825

These figures, it will be perceived, are for the calendar year, and as the ordinary official returns are made up for the fiscal year, viz., from July to July, it is difficult to present an exact comparison of this total with that of former years. As the best parallel obtainable, however, we give the following statement of annual importations for the last ten fiscal years :—

	Specie.	Merchandise.	Total.
	$	$	$
1857–58	19,274,496	263,338,654	282,613,150
'58–59	7,434,789	331,333,341	338,768,130
'59–60	8,550,135	353,616,119	362,166,254
'60–61	46,339,611	288,310,542	335,650,153
'61–62	16,415,052	258,941,999	275,357,051
'62–63	9,584,105	243,335,815	252,919,920
'63–64	13,115,612	316,447,283	329,562,895
'64–65	9,810,072	238,745,580	248,555,652
'65–66	10,700,092	434,812,066	445,512,158
'66–67	22,308,345	389,924,977	413,233,322

" Although the imports began to decline towards the close of last year, yet the aggregate for the year is largely in excess of the highest period before the war, is $135,000,000 in excess of the last year of hostilities, and $62,000,000 below the year next succeeding peace, which was far in excess of the most active year in the history of our trade. There can be no reasonable doubt that for the years 1865-66 and 1866-67 the importing trade was largely overdone, and a period of reaction was to be expected. The process of contraction appears to have set in with the preparations for the trade of this spring, and hence we find the receipts from November to the present time to have been upon a conservative scale. The following comparison shows the importations into the United States (specie included) for the past three months of the current year, compared with the same period of 1867 :—

	1868.	1867.
	$	$
January	22,243,651	27,934,467
February	28,785,637	35,667,942
March	33,038,066	32,780,485
Total	84,967,354	96,380,894
Decrease 1868	12,313,540	—

" It is thus apparent that the receipts for the first quarter are at the rate of $50,000,000 per annum, or 12 per cent. less than for the same period of 1867. This reduction, however, has not been such as to render the importing trade much more profitable than it was a year ago; so that it would seem to be fairly presumable that the preparations for the fall importation will not be on a scale exceeding the arrivals for the current season. We now turn to the export movement. The Director's returns present that portion of the produce exports usually entered in currency values reduced to gold; and for the convenience of comparison we shall, therefore, give the entire exports in gold values:

	$
Domestic produce at Atlantic ports	281,100,907
„ „ Pacific ports	13,891,331
„ specie and bullion	67,455,092
Foreign merchandise	15,056,179
„ specie	8,138,506
Total exports	385,642,015

" It thus appears that the total exports for the year 1867 amounted to $385,642,015, gold value, against $383,048,825 of imports, showing an excess of exports amounting to about $2,500,000. The exports for the first three months of the current year, show a material decline from those of the same period of last year, as will appear from the following comparative statement:—

	1868.	1867.
	$	$
Domestic produce	79,641,204	98,157,244
„ specie	14,517,095	9,491,522
Foreign re-exports	4,658,467	5,904,529
Total three months	98,816,766	113,553,295

" The total exports for the past quarter of the year are thus $98,816,766, against $113,553,295, showing a decrease of $14,736,529. This falling off is due mainly to the lower value of our shipments of cotton this year. The quantity and value of cotton shipped in each of these months in 1867 and 1868, stands on the Bureau reports as follows:—

	1868.		1867.	
	Quantity.	Current Value.	Quantity.	Current Value.
	lbs.	$	lbs.	$
January	109,164,492	16,691,424	91,662,704	29,832,988
February	101,723,505	18,018,189	91,607,260	29,476,413
March	101,031,453	21,546,685	123,264,739	38,275,314
Total	311,919,450	56,256,298	306,534,703	97,584,715

"While we have shipped 5,400,000 lbs. of cotton during the first quarter, more than last year, yet the declared value is $41,300,000 currency, less than then. This heavy falling off in the value of this staple has been, to a large extent, compensated by an increased value in nearly all the other exports. It may be of interest, as affording a criterion of the probable movement of the precious metals, to ascertain the balance of our foreign trade, so far as indicated in these returns; we therefore present the following comparison of imports and exports for the first quarter of the year:—

	Imports.	Exports.	Excess of Exports.
	$	$	$
First quarter, 1868	84,067,354	98,816,766	14,749,412
„ '67	96,380,894	113,553,295	17,172,401

"According to these figures, the exports for the three months were $14,749,412 in gold, above the value of the imports. This, however, is not an infallible indication of the real position of the trade balance. Much of the cotton sent out was consigned on account of home shippers, and during the late advance on the staple, would realise much higher prices than the invoice value; while, as a rule, consignments of foreign merchandise to this market have not realised the invoiced price. Upon the whole, this showing cannot be deemed an unsatisfactory one."

VI.—*Parliamentary Constituencies in* 1832 *and* 1868.

FROM the *Times*:—

"At a moment when everybody is speculating on the composition of the new Parliament, and when five or six hundred gentlemen are anxiously weighing their chances of a renewal of senatorial honours, it may be worth while to turn back to the general election of 1832 as most nearly resembling the impending contest. That the House of Commons of 1868 will differ as much from its predecessor as the House of Commons of 1833 differed from that of 1831 is possible, though for reasons which will presently appear, exceedingly improbable; that it will differ more is morally impossible. On a comparison of the first and second Reform Acts, the larger dimensions of the former are obvious. Household and lodger suffrage may be 'a leap in the dark,' and are undoubtedly a very wide measure of enfranchisement, but it was a more considerable change to wrest electoral power from oligarchical corporations and smaller or larger bodies of freemen, and extend it to 10*l.* householders. Prior to 1832 there existed in many towns no genuine electoral body at all, and the election of that year was the first real expression of the popular voice for many generations. It was, therefore, the height of improbability that these communities would re-elect the so-called representatives who had been returned by patrons, or by cliques, always irresponsible and often corrupt. Whereever the Reform Act converted a sham election into a real one, a change of members followed as a matter of course. The Act of 1867 has effected a far less considerable change. In 1867 our representative system was reformed; in 1832 it was revolutionised. If the second Reform Act is thus less significant than the first with respect to the franchise, it is puny indeed with respect to redistribution. It is a mannikin beside a giant. In 1832—

Fifty-six two-membered boroughs were disfranchised	112
Higham Ferrars was disfranchised	1
Thirty boroughs lost a member each	30
Weymouth and Melcombe Regis lost	2
Total number of seats	145

" These were thus allotted :—

Twenty-two two-membered English boroughs	44
Twenty one-membered boroughs	20
Twenty-six counties were divided	52
Yorkshire was divided, having an addition of	2
Seven counties received a third member	7
Isle of Wight	1
Southwark and Liverpool a second member	2
Three Welsh counties "	3
Swansea district—new group	1
Scotland obtained an addition of	8
Ireland "	5
Total	145

" In 1867-68 a far less sweeping change was made :—

Six two-membered boroughs were disfranchised	12
Five one-membered "	5
Thirty-five boroughs lost one member each	35
Peebles and Selkirk (united) lost	1
Total number of seats	53

" These fifty-three seats were thus disposed of :—

Thirteen counties further divided with an addition of	25
Manchester, Liverpool, Birmingham, and Leeds a third member	4
Hackney separated from Tower Hamlets	2
Merthyr Tydvil and Salford a second member	2
Ten new boroughs, Chelsea having two members	11
London University	1
Scotch Universities	2
" border boroughs	1
Ayr, Aberdeen, Lanark (counties), Glasgow and Dundee, one additional member	5
Total	53

"One hundred and forty-five seats being redistributed in 1832, as against fifty-three in 1867, let us see what was the operation of the former measure. Of 513 English members (the complement was reduced by the Act to 500) 190 were re-elected by their old constituencies, about seventy of them without the trouble of a contest, and virtually ten or a dozen more, the contest being only for the second seat. Thirty-six others wooed their old loves, but were unsuccessful in several of these cases, the boroughs having figured in Schedule B, and the two former members fighting for the single seat that was left. About seventy transferred their affections to other constituencies, and were successful suitors, so that in all 260, or half the English members who sat in the Parliament which passed the Reform Bill, sat also in the reformed house. Sixteen other hon. gentlemen were 'on with a new love,' but encountered rejection, one of them, Sir De Lacy Evans, being doubly defeated—at Rye, for which he had been returned in 1831, and at Westminster, where he was brought forward in opposition to Sir John Cam Hobhouse. In Scotland, twenty members were re-elected, three or four changed their seats, and six were defeated. In Ireland thirty-nine obtained re-election, thirteen were unsuccessful, and some half-dozen changed their seats. In a number of cases members went from one part of England to another, or crossed St. George's Channel. The new metropolitan constituencies opened the House of Commons doors to several men whose boroughs had been inserted in Schedule A or Schedule B. Thus, Lambeth elected Mr. Tennyson D'Eyncourt, who had represented Bletchingley, if it be not a solecism to say that such a place had been represented at all; the Tower Hamlets rescued Dr. Lushington, who had been politically shipwrecked at Winchelsea; Marylebone returned Attorney-General Sir W. Horne, who had sat for Newton, Hants, and Mr. Portman, who had been a member for Dorsetshire. O'Connell transferred his affections from Kerry to Dublin, and by insisting on the shibboleth of 'Repeal,' obliged several members to fly for refuge to less exacting constituencies in England. Lord Tullamore went from Carlow to Penryn; Mr. Spring Rice from Limerick to Cambridge; and Lord Dungannon from Kilkenny to Nottingham. There was, however, a slight counter current, for Sir John Beresford, shifting from Northallerton to Coleraine, succeeded by a single vote, and Mr. Thomas Gladstone, driven from his anchorage at Queenborough, secured election at Portarlington. His brother, the present leader of the Opposition, entered Parliament as member for Newark, both of them being Conservatives, and as the sons of a West India proprietor, opposed to the immediate abolition of slavery, which was one of the test questions of the day. Mr. Disraeli, making his *debut* in public life at the same time as his future rival, was less successful. 'Supported by neither of the aristocratic parties,' but recommended by Hume and O'Connell, 'he fought the battle of the people' (the expressions quoted are his own) at Wycombe, but though supported by Tories as well as Radicals, he failed by twenty-one votes to break down Whig influence in that small Buckinghamshire borough. Nobody would have ventured to predict that the young ultra-Tory Christchurch student was destined to lead the Liberal party, or that the Radical candidate for Wycombe would prove the 'foeman worthy of his steel.' Who knows but that in the coming election some unknown young men may in like manner enter Parliament on whom the mantle of statesmanship is fated to fall? Speaking roughly, the 'new blood' formed half the Reformed House. Allowance must be made for a handful of members who, though excluded from the Parliament of 1831, had previously been legislators, and as *Dod* only commenced his labours with the new Parliament, it is difficult in several cases to ascertain the identity of persons bearing the same name. Taking these things into account, it may be safely stated that about 340 gentlemen were re-elected, and that about 300 neophytes entered the reformed house.

"We have seen that the redistribution of 145 seats and the ordinary vicissitudes of parliamentary life led to the removal or retirement of nearly half the former members. What will be the probable result of the more moderate measure of 1867? Now, as in 1832, seats have been taken from the south and given to the north. The Cornish boroughs were rudely despoiled by the first Act; Devon, Dorset, Wilts, Hants, Gloucestershire, and Sussex, are especial sufferers from the second, and it is not to be expected that the M.P.'s for boroughs like Honiton, Marlborough, and Lymington, will be welcomed at Stalybridge, Darlington, or Dewsbury. The forty-five seats taken away from small towns and transferred to other English constituencies, must almost inevitably lead to as many changes in the *personnel* of the House; for even should any of those forty-five gentlemen find refuge elsewhere—should Mr. Brand, for instance, secure election in Cambridgeshire, or Lord Edward Howard at Preston—they will, in most cases, displace the present occupants. As for the seven seats sacrificed to the exigencies of Scotland, it is true the Lord Advocate, Thetford being politically submerged, is soliciting the suffrages of the Northern Universities, and may have a chance of success; but his dozen companions in misfortune have not, as Southrons, the remotest prospect of winning the favour of Scotch constituencies. Speaking broadly, a seat transferred involves a change of member, and the fifty-three seats redistributed will introduce fifty-three new faces into the next Parliament. Then, again, the close of a political *regime* naturally causes an unusual number of retirements. A number of veterans who have borne the labour and heat of the day will think this a fitting time to give place to their juniors. The fifty-three changes will thus, probably, be augmented to one hundred, and possibly another fifty, finding the composition of their constituencies so much altered as to render it hopeless to stand a contest, will retire altogether, or offer themselves elsewhere. This would bring the number of changes up to one hundred and fifty, and there remain for consideration the chances of the elections. If the number of members rejected by their former constituencies be put down at seventy, the conclusion would be that two hundred and twenty gentlemen who took part in the passing of the second Reform Act, will have no share in its working, and that one-third of the new Parliament will consist of untried men. It is quite conceivable that the composition of the new House will not differ so considerably from that of the old, and it is highly improbable, judging from the experience of 1832, that this estimate will be exceeded."

VII.—*Discrepant Criminal Statistics.*

THE Manchester City Council recently appointed a sub-committee to investigate the principles upon which the criminal returns made to the Home Office by the police of their own and some other large towns were prepared. The discrepancies pointed out in the following report—as printed in the *Manchester Guardian* of the 2nd July—will not surprise those statisticians who are familiar with the Home Office blue book. Other defects in the *Judicial Statistics of England and Wales*, formed the subject of an elaborate paper by Mr. Hammick, which will be found in vol. xxx of this *Journal*, at pp. 375 *et seq.*:—

"*The State of Crime in Manchester.*

"The watch committee presented the following report:—

"Upon the 13th February the attention of the committee was directed to certain letters which had been addressed by Mr. Aspland, of Dukinfield, to, and published in, the local papers, and which had subsequently been printed in a pamphlet form and circulated; in which letters Mr. Aspland attempted to prove, by reference to the published criminal statistics, the great inefficiency, as compared with the police of other towns, of the Manchester city police force. The committee referred the subject to a special sub-committee, and they now submit for the information of the council the report received from such sub-committee, which report the committee have unanimously approved and adopted. The committee have ordered a copy of such report to be sent to each of the city justices.

"On behalf of the committee,

"J. M. BENNETT, *Chairman.*

"*Town Hall*, 18*th June*, 1868.

"Your sub-committee, having been requested to inquire into the allegations made by Mr. Aspland against the efficiency of the police force of this city, present the following report:—

"The charges which your sub-committee have been requested to investigate, and which Mr. Aspland has attempted to prove by reference solely to the published criminal statistics, may be briefly stated to be, that according to such statistics the number of crimes committed in Manchester was, in proportion, far greater, and the number of prisoners apprehended for these crimes considerably less, than in Liverpool, Salford, Birmingham, Leeds, or Sheffield. Your sub-committee have, for the purpose of their inquiry, assumed that the numerous figures quoted by Mr. Aspland are accurately given, and their object has been, in fact, to ascertain whether the returns prepared by the police in the different places are made upon a uniform system, and to what extent, if at all, they can with propriety or fairness be used for the purpose of comparison. In his annual report to the watch committee in 1866, Captain Palin called attention to the observations made by the Recorder of Birmingham in reference to the returns of indictable offences, who stated that 'crime in Sheffield, Leeds, and Birmingham, was taken to have a very different meaning from what it had in the minds of those who made the returns for Liverpool and Manchester.' In a letter addressed by the stipendiary magistrate to the *Manchester Guardian* on the 12th February last, Mr. R. Fowler stated that 'On inquiry I found that in many crimes, in accordance with instructions from the Home Office, a considerable amount of latitude was allowed to the police in the various districts in the preparation of the returns, and that apparently in no two places was it exercised alike. I found that in Manchester many crimes and offences were included in the returns which in other places would have been excluded altogether, and that, in fact, the statistics were useless for comparison.' Your sub-committee, as the result of the inquiries which they have made, are thoroughly convinced of the accuracy of the opinions thus expressed by gentlemen whose opportunities for forming a judgment will not be disputed, and whose opinions are entitled, at least, to equal consideration with any opinions given by Mr. Aspland. Mr. Aspland has attempted to justify his use of the statistics by remarking that 'the Home Secretary informs me that special instructions were issued in 1866 to secure uniformity in the returns.' The instructions referred to state 'that all cases of simple larceny reported to the police, when the amount is under 5*s.* and for which no apprehension takes place, should be excluded from the table of indictable offences.' Your sub-committee find that all simple larcenies under the value of 5*s.* had been previously treated in the manner suggested, and therefore such 'special instructions' could have no effect whatever upon the returns. Although the foundation upon which Mr. Aspland's charges are based is shown to be untenable, and the evidence by which he seeks to support them valueless, your sub-committee felt that their inquiry would not be complete unless they personally examined the method pursued in the preparation of the criminal returns in at least one of the places which had been selected for comparison; and they accordingly applied to Major Greig, the chief of the Liverpool police, for permission to inspect his books. The request was unhesitatingly complied with, and your sub-committee consider that their acknowledgments are due to Major Greig for the cordial manner in which they were received and shown everything in his establishment relating to the subject, and for the personal assistance which he afforded them in their investigations. The result of their inquiries at Liverpool satisfied your sub-committee of the truth of the remark before quoted, that crime is understood to have a very different meaning in Liverpool to what it has in Manchester, partly arising from the difference in which magisterial authority is exercised in the two places, and partly from the latitude allowed by the Secretary of State's instructions in the preparation of the returns. As an illustration, your sub-committee may refer to the crimes classed under the head of 'indictable offences,' which table, if prepared upon the same principle, and made to include the same class of offences, might be considered as fairly representing the state of crime in any district. This table includes not only all cases which may be committed for trial, but also all such other offences reported as in the opinion of the officers preparing the returns would, if apprehensions had taken place, have been sent for trial, and not dealt with summarily by the justices.

"As stated in the report of Captain Palin before referred to, the table (indictable offences) 'is prepared annually for each police district, in conformity with, and under instructions received from, the Home Secretary, to whom the returns are forwarded in October every year. In preparing this return the police are instructed to enter only such cases as in their judgment, from the circumstances attending them, would, if discovered, be sent for trial. It will be seen that a discretionary judgment is given to the police which it is scarcely possible for two individuals to exercise alike. They are called upon to form an opinion of the view a magistrate would take of a case if there were a prisoner to deal with, when they have no prisoner, and frequently but imperfect details of the circumstances of the robbery to assist them in forming a judgment. The practice of magistrates, too, is not invariably the same—one may commit a prisoner for trial, whilst another, for the same offence, might convict him summarily, and in this case the offence is not to be considered an indictable offence, but is to be excluded from the table. It is plain that, without some definite rule to guide them in the preparation of this return, the opinions of the officers must vary as much as the practice of the magistrates, and that any information founded on such returns cannot be considered trustworthy.' The discretionary power is very differently exercised in different places, and affords opportunity for great discrepancy in the principles upon which the returns are made of the indictable offences committed within any police borough or district. In the returns for the year 1867 your sub-committee find that the number of indictable offences, as stated in the returns made to the Secretary of State, for Liverpool was 4,792, and for Manchester 7,159, including, of course, in both cases indictable offences other than robberies. In the Manchester returns there is a table (and it is believed that such a table is to be found in the Manchester returns only), in which is included every robbery reported to have been committed, together with the value reported to have been stolen, within the city. To enable any comparison to be fairly instituted with any other place, it is obvious that, as in Manchester, the number, not only of what are classed as indictable robberies, but also of all robberies under whatever legal or technical description they may be placed, should be stated. Your sub-committee found that in Liverpool, for instance, the robberies omitted from their returns are not classified, and that the number is not recorded, nor is the amount of property reported to have been stolen stated.

"From the system, however, adopted and the information obtained in Liverpool, your sub-committee were enabled to form an approximate estimate of the total number of robberies reported to have been committed in one year in that borough, and they have the authority and permission of Major Greig for stating that it would be about 16,000, whilst in Manchester the number of robberies reported to have been committed is shown in the table last referred to, to have been 8,446.

"It seems to your sub-committee unnecessary to inquire whether or not the indictable offences, as shown from the judicial statistics quoted by Mr. Aspland, correctly represent the actual amount of crime or the number of offences committed. That such is not the fact must be obvious to every impartial observer, when it is seen that in the year 1866, in Birmingham, with a population of 296,076, the indictable offences are stated to have been 801 only; in Leeds, with a population of 207,165, only 504; and at Sheffield, with a population of 185,172, only 398. If any additional evidence of the absurdity of placing reliance, for the purpose of comparison, upon the numbers given in the printed statistics were required, it would be only necessary to state that in the returns for Hull—a seaport town containing a population of 97,661, and offering all the incentives to crime inevitable in such a district—the indictable offences for 1866 are given as 142, and the apprehensions as 149! Other instances might be adduced in some of the southern counties, in which the apprehensions either exceed or equal the number of crimes committed. It is impossible to doubt that, in such places, crimes reported for which apprehensions have not been made, are not included in the returns, which, if entitled to any credit, would, in fact, prove that in Hull and other places, every crime committed is detected, and every offender brought to justice. If for the purpose of comparison, the statistics were of any real value (which your sub-committee do not believe), one instance might be quoted which Mr. Aspland, in his anxiety to condemn Manchester, has either failed to notice, or for obvious reasons has carefully withheld from the public. From the returns for 1866 there appeared to have been—

	Highway Robberies.	Apprehensions.	Percentage of Apprehensions to Offences.
In Liverpool	56	10	17·7
„ Manchester	217	136	62·6

" It would be quite as just for your sub-committee to refer to this last table as an evidence of the superior efficiency of the Manchester force, as it is for Mr. Aspland to contend in favour of an opposite conclusion from the multitude of figures which he has quoted from the criminal statistics. In relation to the number of highway robberies, it may be stated that there is no doubt that in the Liverpool returns highway robbery does not mean the same thing as in the Manchester returns. In Manchester every robbery from the person, accompanied by violence, in the street or elsewhere—whether correctly or not your sub-committee do not decide—is classified as highway robbery; whilst your sub-committee have reason to believe that in Liverpool, as well as in other places, those robberies only which are committed in the streets and highways, and accompanied by violence, are thus classed in the return.

" With regard to the number of known thieves, and the houses of receivers of stolen goods, your sub-committee have reason to believe that the system upon which the information is obtained and recorded by the police varies in different places, and that such variances will, to a great extent, account for the difference in the apparent or stated numbers.

" Your sub-committee, after most careful investigation, are satisfied that the criminal tables in the judicial statistics, for the purpose of comparison, are valueless; that, considering the population, there is not a larger amount of crime in Manchester than in any other town similarly situated; and that the allegations of inefficiency, based on the statistics, made against the Manchester police, are without foundation. Your sub-committee believe that the police force of this city is, in every respect, as well organised and as efficient, both for the prevention and detention of crime, as any other force in England.

" In conclusion, your sub-committee may add, with reference to the statement made by the mayor at a meeting of justices, that Captain Palin had expressed an opinion that 'the Prisoners' Aid Society had the effect of attracting rogues to Manchester,'—and the publication of which opinion has probably induced the very determined attempts since made by Mr. Aspland to prove the inefficiency of the city police,—that they have examined carefully the documentary evidence in Captain Palin's possession, upon which such opinion was based, and they have no hesitation in stating that in their opinion it was impossible, with such evidence, to come to any other conclusion. Your sub-committee might ask whether the very object of the establishment of a 'Discharged Prisoners' Aid Society' was not to induce discharged prisoners to seek for and to obtain the benefits which such society proposes to confer; and even if there had been no positive evidence of the fact, it might be reasonably assumed that the existence of such a society would be a circumstance which would attract 'discharged prisoners' to this city."

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—QUARTER ENDED MARCH, 1868.
BIRTHS AND DEATHS—QUARTER ENDED JUNE, 1868.

A.—*Serial Table of* MARRIAGES, BIRTHS, *and* DEATHS, *returned in the Years* 1862-68, *and in the* QUARTERS *of those Years.*

Calendar YEARS, 1862-68:—*Numbers.*

Years.........	'68.	'67.	'66.	'65.	'64.	'63.	'62.
Marriages No.	—	178,791	187,776	185,474	180,387	173,510	164,030
Births........ „	—	767,897	753,870	748,069	740,275	727,417	712,684
Deaths .... „	—	471,102	500,689	490,909	495,531	473,837	436,566

QUARTERS *of each Calendar Year,* 1862-68.

(I.) MARRIAGES:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	36,670	36,380	37,579	36,807	37,988	35,528	33,953
June .... „	—	45,462	48,577	45,827	44,599	44,146	40,853
September „	—	44,003	46,257	45,852	44,675	41,932	40,600
December „	—	52,946	55,363	56,988	53,125	51,904	48,624

(II.) BIRTHS:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	198,594	195,355	196,753	194,130	192,947	186,341	181,990
June .... „	202,892	199,649	192,427	192,988	188,835	189,340	185,554
September „	—	190,255	179,096	181,941	181,015	173,439	172,709
December „	—	182,638	185,594	179,010	177,478	178,297	172,431

(III.) DEATHS:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	120,095	134,254	138,186	140,410	142,977	128,096	122,019
June .... „	109,984	112,523	128,551	115,892	116,880	118,121	107,392
September „	—	108,462	116,650	113,362	112,223	112,504	92,381
December „	—	115,863	117,352	121,245	123,451	115,116	114,774

Annual Rates per Cent. of PERSONS MARRIED, *and of* BIRTHS, *and* DEATHS, *during the Years* 1862-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1862-68:—*General Percentage Results.*

YEARS............	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
Estmtd. Popln. of England *in thousands* in middle of each Year....	21,649	—	21,430	21,210	20,991	20,772	20,554	20,336
Persons Married Per ct.	—	1·689	1·668	1·770	1·768	1·736	1·688	1·614
Births .... „	—	3·508	3·584	3·554	3·564	3·564	3·539	3·504
Deaths.... „	—	2·257	2·198	2·361	2·339	2·386	2·305	2·147

QUARTERS *of each Calendar Year,* 1862-68.

(I.) PERSONS MARRIED:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	1·364	1·398	1·382	1·442	1·428	1·472	1·408	1·360
June........ „	—	1·717	1·704	1·840	1·754	1·724	1·726	1·614
Septmbr. „	—	1·635	1·628	1·728	1·732	1·704	1·616	1·582
Decembr. „	—	1·995	1·954	2·064	2·146	2·022	1·996	1·890

(II.) BIRTHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	3·694	3·674	3·713	3·777	3·765	3·740	3·691	3·644
June........ „	3·764	3·637	3·742	3·644	3·692	3·651	3·700	3·665
Septmbr. „	—	3·371	3·518	3·346	3·434	3·453	3·343	3·365
Decembr. „	—	3·347	3·368	3·458	3·370	3·376	3·428	3·359

(III.) DEATHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	2·234	2·576	2·551	2·652	2·723	2·772	2·538	2·443
June........ „	2·040	2·220	2·109	2·434	2·217	2·260	2·308	2·121
Septmbr. „	—	2·024	2·006	2·179	2·140	2·141	2·169	1·800
Decembr. „	—	2·211	2·137	2·187	2·283	2·349	2·213	2·230

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended June,* 1868.

1 Quarters ending	2 Average Price of Consols (for Money).	3 Average Price of Wheat per Quarter in England and Wales.	4 Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the *Mean* Prices. Beef.	5 Mutton.	6 Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	7 Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week. In-door.	8 Out-door.	9 Mean Temperature.
1866	£	*s.* *d.*	*d.* *d.* *d.*	*d.* *d.* *d.*	*s.* *s.* *s.*			°
June 30	86⅝	46 6	4¾—7 5⅞	5½—8½ 7	60—95 77	123,657	734,139	53·0
Sept. 30	88⅜	51 –	5¼—7¼ 6⅛	5½—8¼ 6¾	75—120 97	120,955	717,553	58·9
Dec. 31	89⅝	56 8	4¾—7 5⅞	5¼—7½ 6⅜	85—130 107	133,979	734,312	46·2
1867								
Mar. 31	90⅞	60 7	4¾—7 5⅞	5—7¼ 6⅛	115—160 137	147,620	832,364	38·9
June 30	92⅝	63 11	4¾—6¾ 5¾	5¼—7¼ 6¼	135—175 155	134,678	779,629	53·5
Sept. 30	94⅝	65 4	4¾—6¾ 5¾	5—7 6	100—155 127	129,838	743,977	59·7
Dec. 31	94⅜	67 11	4½—6¾ 5⅝	4½—6½ 5½	110—155 132	146,237	771,230	42·5
1868								
Mar. 31	93	72 2	4¼—6½ 5⅜	4¼—6½ 5⅜	125—170 147	159,716	860,165	41·4
June 30	94⅜	71 10	4½—6¾ 5⅝	4¾—7 5⅞	130—170 150	142,588	800,944	55·8

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England in the Ten Years* 1851-60; *in the Year* 1867; *in the Spring, Summer, and Autumn Quarters of* 1867; *and in the Winter and Spring Quarters of* 1868.

Divisions.	Average Annual Rate of Mortality to 1,000 Living in Ten Years, 1851-60.	1867. Year.	 Spring Quarter.	 Summer Quarter.	 Autumn Quarter.	1868. Winter Quarter.	 Spring Quarter.
I. London	23·63	22·98	20·38	21·27	23·61	23·29	21·88
II. South-Eastern counties	19·55	18·90	18·02	17·64	18·07	19·14	17·01
III. South Midland "	20·44	20·32	19·87	18·34	19·03	20·01	17·13
IV. Eastern counties	20·58	19·33	19·43	17·24	18·38	19·43	18·05
V. South-Western counties	20·01	19·13	19·13	15·89	17·65	20·21	16·94
VI. West Midland "	22·35	20·70	19·49	18·82	20·30	21·31	19·19
VII. North Midland "	21·10	20·31	19·92	18·63	19·25	20·59	19·89
VIII. North-Western "	25·51	25·89	24·06	23·76	26·31	26·31	23·92
IX. Yorkshire	23·09	23·64	23·45	22·65	21·89	22·53	22·51
X. Northern counties	21·99	24·73	23·83	23·19	24·67	24·80	21·95
XI. Monmouthshire and Wales	21·28	20·68	21·85	17·82	18·85	22·12	19·89

Note.—The above mortality for the *year* 1867 is the mean of the quarterly rates

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per Cent. in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1868-66.

	Area in Statute Acres.	Population Enumerated.	Quarters ending	Annual Rate of Mortality per Cent. in each Quarter of the Years			
		1861.		1868.	Mean '58-67.	1867.	1866.
In 142 Districts, and 56 Sub-districts, comprising the *Chief Towns*	3,287,151	10,930,841	March	2·403	2·761	2·732	2·966
			June	2·220	2·353	2·199	2·639
			Sept.	—	2·249	2·243	2·513
			Dec.	—	2·460	2·380	2·439
			Year	—	2·456	2·389	2·639
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,037,732	9,135,383	Year	—	2·014	1·955	2·008
			March	2·012	2·350	2·315	2·250
			June	1·804	2·057	1·991	2·171
			Sept.	—	1·746	1·696	1·749
			Dec.	—	1·902	1·818	1·860

Note.—The three months, January, February, March, contain 90, in leap year 91 days; the three months, April, May, June, 91 days; each of the last two quarters of the year 92 days. For this inequality a correction has been made in the calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE and RAINFALL *in last Spring Quarter, in Fourteen Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1868.	Births in 13 Weeks ending 27th June, 1868.	Deaths in 13 Weeks ending 27th June, 1868.	Annual Rate to 1,000 Living during the 13 Weeks ending 27th June, 1868.		Mean Temperature in 13 Weeks ending 27th June, 1868.	Rainfall in Inches in 13 Weeks ending 27th June, 1868.
				Births.	Deaths.		
Total of 14 large towns	6,391,080	61,044	37,473	38·10	23·39	52·4	4·22
London	3,126,635	28,629	17,043	36·75	21·88	55·2	4·22
Bristol (city)	167,487	1,563	971	37·46	23·27	—	—
Birmingham (borough)	352,296	3,303	1,813	37·63	20·66	53·3	3·21
Liverpool (borough)	500,676	4,940	3,213	39·60	25·76	52·7	3·71
Manchester (city)	366,835	3,597	2,528	39·36	27·66	53·1	[illegible]
Salford (borough)	117,162	1,231	757	42·17	25·93	51·8	3·14
Sheffield (borough)	232,362	2,328	1,525	40·21	26·34	52·6	[illegible]
Bradford (borough)	108,019	1,266	838	37·92	25·10	—	—
Leeds (borough)	236,746	2,644	1,312	44·82	22·24	52·6	[illegible]
Hull (borough)	108,269	1,097	592	35·91	19·38	51·2	[illegible]
Newcastle-on-Tyne (borough)	127,701	1,276	698	40·10	21·94	51·0	4·05
Edinburgh (city)	177,039	1,815	1,049	41·15	23·78	51·9	4·63
Glasgow (city)	449,868	5,110	3,307	45·59	29·50	51·1	[illegible]
Dublin (city and some suburbs)	319,985	2,245	1,827	28·16	22·92	—	—
Vienna	(1868.) 560,000	—	4,970	—	35·62	59·5	—

Note.—The population used in deducing the birth and death-rates for the quarter is not estimated for any particular quarter, but for the middle of the year.

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended* 31*st March*, 1868-66: *and* BIRTHS *and* DEATHS *in Quarters ended* 30*th June*, 1868-66.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute Acres.	POPULATION, 1861. (*Persons.*)	MARRIAGES in Quarters ended 31st March.		
			1868.	1867.	1866.
		No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	37,324,883	20,066,224	36,670	36,380	37,579
I. London	77,997	2,803,989	6,185	6,359	6,687
II. South-Eastern	4,065,935	1,847,661	2,860	2,885	2,861
III. South Midland	3,201,290	1,295,515	1,646	1,612	1,514
IV. Eastern	3,214,099	1,142,562	1,495	1,427	1,486
V. South-Western	4,993,660	1,835,714	2,845	2,795	2,994
VI. West Midland	3,865,332	2,436,568	3,996	4,108	4,220
VII. North Midland	3,540,797	1,288,928	2,056	2,023	1,970
VIII. North-Western	2,000,227	2,935,540	6,754	6,588	6,545
IX. Yorkshire	3,654,636	2,015,541	4,251	4,177	4,526
X. Northern	3,492,322	1,151,372	2,428	2,236	2,504
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,154	2,175	2,272

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th June.			DEATHS in Quarters ended 30th June.		
	1868.	1867.	1866.	1868.	1867.	1866.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	202,892	199,649	192,427	109,984	112,523	128,551
I. London	28,629	28,367	26,770	17,043	15,654	19,292
II. South-Eastern	16,864	16,687	15,726	8,568	8,967	9,734
III. South Midland	12,090	11,985	11,530	5,726	6,611	6,964
IV. Eastern	9,913	10,037	9,855	5,235	5,621	6,211
V. South-Western	15,089	15,216	14,990	7,851	8,852	10,083
VI. West Midland	25,006	24,903	24,359	12,797	12,828	15,668
VII. North Midland	12,296	12,292	11,885	6,662	6,633	7,473
VIII. North-Western	33,565	31,894	30,360	19,680	19,478	22,851
IX. Yorkshire	22,229	22,132	20,913	12,308	12,673	14,702
X. Northern	13,862	13,086	13,151	7,121	7,600	7,503
XI. Monmthsh. & Wales	13,349	13,100	12,888	6,993	7,606	8,070

G.—*General Meteorological Table, Quarter ended June,* 1868.

[Abstracted from the particulars supplied to the Registrar-General by James Glaisher, Esq., F.R.S., &c.]

1868. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 97 Years.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.		Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
April ...	48·1	+2·2	+1·2	44·9	+1·1	41·4	+0·9	18·7	+0·3	49·3	·261	+·009	3·0	+0·1
May......	57·3	+4·8	+4·4	53·0	+3·8	49·0	+3·5	24·4	+4·1	58·6	·348	+·046	3·9	+0·5
June ...	62·0	+3·9	+2·9	56·3	+1·6	51·4	+0·6	25·5	+4·6	64·0	·379	+·006	4·2	0·0
Mean ...	55·8	+3·6	+2·8	51·4	+2·2	47·1	+1·7	22·9	+3·0	57·3	·329	+·020	3·7	+0·3

1868. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Amnt.	Diff. from Average of 53 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
April ...	78	− 1	29·782	+·019	543	0	2·1	+0·4	297	6	18	6	20·0	45·7
May......	74	− 2	29·845	+·071	534	− 8	1·7	−0·5	230	0	16	15	33·0	50·6
June ...	68	− 6	29·980	+·179	531	0	0·5	−1·5	211	0	6	24	35·5	53·6
Mean ...	73	− 3	29·869	+·090	536	− 3	Sum 4·3	Sum −1·6	Mean 246	Sum 6	Sum 40	Sum 45	Lowest 20·0	Highest 55·8

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

Thunderstorms occurred on the 21st April at Bath and Ripon; on the 23rd at Aldershot Camp, Weybridge Heath, Strathfield Turgiss, and Cardington: on the 24th at Ensleigh Lansdowne, Leeds and York; on the 25th at Aldershot Camp, Weybridge Heath, Strathfield Turgiss, Bath, Gloucester, and Stonyhurst; on the 26th at Bywell and North Shields; and on the 27th at London, Camden Town, Oxford, Gloucester, Wisbeach, Boston, and Hull. On the 2nd May at Miltown; on the 5th at Guernsey and Helston; on the 11th at Allenheads, Silloth, Carlisle, and North Shields; on the 12th at Eccles; on the 18th at Silloth and Miltown; on the 19th at Guernsey, Osborne, Bournemouth, Wilton, Marlborough College, Hawarden, Eccles, Liverpool, Wakefield, Halifax, Hull, Stonyhurst, York, Ripon, Cockermouth, Allenheads, Silloth, Carlisle, Bywell, and North Shields; on the 24th at Miltown; and on the 29th at Guernsey, Helston, Truro, Eastbourne, Worthing, Taunton, Tunbridge Wells, Aldershot Camp, Weybridge Heath, Bath, Marlborough, College, Battersea, London, Oxford, Gloucester, Cardington, Lampeter, Norwich, Grantham, Nottingham, Boston, Eccles, Wakefield, and Hull. On the 4th June at Oxford; on the 10th at Wakefield; on the 19th at Guernsey, Sidmouth, Bournemouth, Wilton, and Bath.

H.—*Special Meteorological Table, Quarter ended* 30*th June*, 1868.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	*Mean Temperature of the Air.*	Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·704	73·5	37·5	36·0	24·7	10·8	52·8	88
Barnstaple	29·701	82·5	30·5	52·0	37·8	18·2	55·5	76
Osborne	29·690	85·2	30·9	54·3	42·1	22·5	55·2	87
Royal Observatory	29·713	88·0	28·9	59·1	45·5	22·8	55·8	73
Royston	29·752	89·8	27·0	62·7	49·9	24·1	55·3	73
Lampeter	29·768	82·0	23·5	58·5	45·6	24·9	53·7	76
Norwich	29·747	83·0	32·0	51·0	39·8	17·5	55·0	69
Derby	29·722	86·0	26·0	60·0	43·0	19·8	55·8	64
Liverpool	29·684	81·2	30·4	50·8	34·4	16·0	53·2	82
Wakefield	29·728	89·0	23·0	66·0	48·8	22·6	54·3	68
Stonyhurst	29·682	83·0	28·9	54·1	40·8	17·8	52·0	77
North Shields	29·757	73·0	29·5	43·5	35·6	14·4	51·3	75

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·3	8	5	7	10	3·4	25	5·8
Barnstaple	1·2	3	5	9	13	2·5	31	4·9
Osborne	0·3	6	6	8	10	4·4	21	4·6
Royal Observatory	0·4	6	6	9	9	5·4	21	4·3
Royston	—	7	5	8	10	5·0	25	2·4
Lampeter	0·6	5	5	10	10	5·4	24	5·2
Norwich	—	6	6	10	8	—	22	3·4
Derby	—	5	4	8	13	—	30	3·3
Liverpool	1·2	5	5	7	13	5·6	36	3·7
Wakefield	1·6	4	5	7	14	5·6	27	3·3
Stonyhurst	0·3	3	4	8	15	6·5	53	4·6
North Shields	1·6	8	4	7	11	5·4	11	4·4

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 30TH JUNE, 1868.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and th Proportion to the Population, Estimated to the Middle of each Year, during e Quarter of the Years* 1868 *to* 1864 *inclusive.*

	1868.		1867.		1866.		1865.		1864.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	28,736	3·60	27,969	3·52	28,876	3·66	28,608	3·65	28,177	3·61
Deaths........	18,036	2·26	19,981	2·51	19,075	2·42	20,786	2·65	22,576	2·89
Marriages ..	5,287	0·66	5,332	0·66	5,627	0·71	5,407	0·69	5,333	0·68
Mean Temperature	40°·6		36°·5		38°·0		35°·3		35°·7	
2nd Quarter—										
Births	31,025	3·89	30,393	3·83	29,801	3·78	30,332	3·86	29,992	3·84
Deaths........	16,928	2·12	17,464	2·20	18,556	2·35	17,066	2·17	18,445	2·36
Marriages ..	5,660	0·71	5,602	0·70	6,019	0·76	5,698	0·72	5,710	0·73
Mean Temperature	51°·9		49°·0		49°·3		51°·5		49°·9	
3rd Quarter—										
Births	—	—	27,888	3·51	27,197	3·45	27,320	3·48	27,063	3·47
Deaths........	—	—	15,106	1·90	15,451	1·95	15,907	2·02	16,131	2·06
Marriages ..	—	—	5,947	0·63	5,089	0·64	5,335	0·68	4,993	0·64
Mean Temperature			55°·2		54°·4		57°·5		54°·5	
4th Quarter—										
Births	—	—	27,865	3·51	27,765	3·52	26,866	3·42	27,213	3·48
Deaths........	—	—	16,473	2·07	18,191	2·30	17,072	2·17	17,151	[illegible]
Marriages ..	—	—	6,540	0·82	6,894	0·87	7,137	0·91	6,639	[illegible]
Mean Temperature			42°·3		43°·5		43°·4		42°·0	
Year— Population.	3,188,125		3,170,769		3,153,413		3,136,057		3,118,[illegible]	
Births	—	—	114,115	3·59	113,639	3·60	113,126	3·60	112,445	3·6[illegible]
Deaths........	—	—	68,024	2·14	71,273	2·26	70,821	2·25	74,303	[illegible]
Marriages ..	—	—	22,521	0·70	23,629	0·75	23,577	0·75	22,675	0·72

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending 30th June,* 1868, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

	Population.		Total Births.			Illegitimate Births.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	31,025	3·89	26	2,792	9·0	11·1
128 town districts	1,615,475	1,735,527	18,748	4·26	23	1,651	8·8	11·3
890 rural "	1,446,819	1,452,598	12,277	3·38	29	1,141	9·3	10·7

	Population.		Deaths.			Marriages.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	16,928	2·12	47	5,660	0·71	140
128 town districts	1,615,475	1,735,527	10,963	2·52	39	3,561	0·82	121
890 rural "	1,446,819	1,452,598	5,965	1·64	60	2,099	0·57	173

Note.—The constitution of several of the districts was altered on January 1, 1868; consequently the numbers of the population in the town and rural districts differ somewhat from those of previous years.

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending 30th June,* 1868.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	9·0						
Northern	5·2	Shetland	1·8	Forfar	10·5	Lanark	8·1
		Orkney	4·3	Perth	11·5	Linlithgow .	6·3
North-Western	6·2	Caithness	7·6	Fife	6·5	Edinburgh .	7·3
North-Eastern	14·5	Sutherland...	5·3	Kinross	17·6	Haddington	6·9
East Midland ..	9·8	Ross and Cromarty	5·1	Clackmannan	13·2	Berwick	9·8
						Peebles	4·4
West Midland.	6·8	Inverness	7·1	Stirling	6·9	Selkirk	11·3
		Nairn	11·3	Dumbarton ..	6·8	Roxburgh ..	9·1
South-Western	8·1	Elgin	9·7	Argyll	6·8	Dumfries	15·8
South-Eastern.	7·4	Banff	17·5	Bute	7·3	Kirkcudbright ..	10·0
		Aberdeen	14·0	Renfrew........	7·4		
Southern	12·3	Kincardine ..	16·5	Ayr	9·0	Wigtown	12·7

IV.—*Divisional Table:*—Marriages, Births, *and* Deaths *Registered in the Quarter ended* 30*th June,* 1868.

1 DIVISIONS. (Scotland)	2 Area in Statute Acres.	3 Population, 1861. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
Scotland .... *Totals*	19,639,377	3,062,294	5,660	31,025	16,928
I. Northern	2,261,622	130,422	125	787	508
II. North-Western........	4,739,876	167,329	155	1,023	667
III. North-Eastern	2,429,594	366,783	676	3,321	1,654
IV. East Midland	2,790,492	523,822	968	4,999	2,719
V. West Midland	2,693,176	242,507	350	2,301	1,169
VI. South-Western........	1,462,397	1,008,253	2,011	12,403	6,966
VII. South-Eastern	1,192,524	408,962	1,050	4,384	2,232
VIII. Southern	2,069,696	214,216	325	1,807	1,013

No. III.—GREAT BRITAIN AND IRELAND.

Summary *of* Marriages, *in the Quarter ended* 31*st March,* 1868; *and* Births *and* Deaths, *in the Quarter ended* 30*th June,* 1868.

Countries.	[000's omitted]. Area in Statute Acres.	 Population, 1861. (*Persons.*)	Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	20,066,	36,670	1·8	202,892	10·1	109,984	5·4
Scotland	19,639,	3,062,	5,287	1·7	31,025	10·1	16,928	5·5
Ireland	20,322,	5,799,	11,607	2·0	40,502	6·9	22,401	3·9
Great Britain and Ireland	77,287,	28,927,	53,564	1·8	274,419	9·5	148,313	5·1

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios of births and deaths are much under those of England and Scotland.—Ed. *S. J.*

Trade of United Kingdom, 1868-67-66.—*Distribution of* **Exports** *from United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), **Imported from, and Exported to, the following Foreign Countries, &c.** [000's omitted.]	First Three Months.					
	1868.		1867.		1866.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—Foreign Countries:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	3,287,	457,	4,265,	552,	3,575,	475,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	6,016,	8,994,	5,414,	7,681,	6,170,	7,698,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	9,891,	8,940,	11,566,	4,699,	11,930,	3,870,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	1,646,	1,653,	845,	1,893,	1,112,	2,145,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	5,937,	3,753,	6,335,	3,736,	5,468,	5,494,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	52,	34,	50,	77,	96,	85,
Western Africa	380,	242,	208,	228,	188,	134,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	—	48,	3,	38,	18,	36,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	377,	418,	39,	626,	106,	462,
South Sea Islands	19,	—	—	—	—	7,
China, including **Hong Kong**	2,948,	2,263,	3,081,	1,629,	2,433,	2,268,
United States of America	12,163,	5,715,	8,906,	7,449,	12,242,	9,655,
Mexico and Central America	275,	302,	324,	205,	210,	309,
Foreign West Indies and Hayti	519,	702,	721,	652,	297,	725,
South America (Northern), New Granada, Venezuela, and Ecuador	329,	696,	215,	566,	440,	797,
" **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	1,434,	625,	1,140,	983,	1,068,	509,
" **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	1,700,	1,740,	1,533,	2,471,	1,948,	2,839,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	—	4,	—	—	2,	3,
Total—Foreign Countries	46,973,	31,586,	44,645,	33,485,	47,303,	37,506,
II.—British Possessions:						
British India, Ceylon, and Singapore	3,610,	5,618,	2,656,	4,903,	5,575,	4,152,
Austral. Cols.—N. So. W., Vict., and Queensld.	617,	1,516,	1,488,	1,064,	1,251,	1,970,
" " So. Aus., W. Aus., Tasm., and N. Zealand	493,	646,	229,	570,	246,	884,
British North America	440,	618,	385,	746,	510,	1,033,
" W. Indies with Btsh. Guiana & Honduras	896,	649,	687,	638,	900,	695,
Cape and Natal	412,	387,	436,	596,	377,	295,
Brt. W. Co. of Af., Ascension and St. Helena	119,	143,	92,	162,	109,	161,
Mauritius	430,	127,	304,	116,	430,	155,
Channel Islands	71,	132,	82,	101,	118,	140,
Total—British Possessions	7,088,	9,836,	6,359,	8,896,	9,516,	9,485,
General Total £	54,061,	41,422,	51,004,	42,381,	56,819,	46,991,

IMPORTS. — (United Kingdom.) — **First Five Months** (*January — May*), 1868-67-66-65-64.—*Computed Real Value* (*Ex-duty*), *at Port of Entry* (*and therefore including Freight and Importer's Profit*), *of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Five Months.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
RAW MATLS.—*Textile.*	Cotton Wool	25,515,	25,884,	38,398,	17,183,	29,341,
	Wool (Sheep's)..	4,014,	6,302,	6,073,	4,704,	4,211,
	Silk	6,499,	6,537,	6,232,	5,734,	4,679,
	Flax	1,189,	1,124,	1,050,	876,	1,936,
	Hemp	1,098,	798,	1,064,	560,	1,579,
	Indigo	819,	975,	720,	602,	586,
		39,134,	41,620,	53,537,	29,659,	42,332,
" " *Various.*	Hides	819,	713,	952,	693,	694,
	Oils	1,446,	1,401,	1,289,	1,105,	911,
	Metals	1,489,	1,333,	1,552,	1,441,	1,626,
	Tallow	442,	243,	532,	394,	382,
	Timber................	1,140,	993,	1,496,	1,572,	1,832,
		5,336,	4,683,	5,821,	5,205,	5,445,
" " *Agrcltl.*	Guano	907,	429,	623,	865,	453,
	Seeds	1,113,	936,	1,058,	1,162,	1,485,
		2,020,	1,365,	1,681,	2,027,	1,938,
TROPICAL &c., PRODUCE.	Tea	4,737,	4,315,	4,359,	4,008,	4,272,
	Coffee	1,488,	1,183,	991,	1,153,	1,079,
	Sugar & Molasses	5,321,	5,504,	4,747,	3,612,	4,829,
	Tobacco	666,	588,	876,	1,003,	910,
	Rice	639,	156,	209,	201,	273,
	Fruits	624,	162,	62,	181,	105,
	Wines	2,389,	2,088,	2,063,	1,494,	2,318,
	Spirits	862,	740,	844,	628,	1,018,
		16,726,	14,736,	14,151,	12,280,	14,804,
FOOD	Grain and Meal.	17,370,	15,375,	10,891,	5,704,	7,241,
	Provisions	4,648,	3,296,	3,627,	3,473,	3,363,
		22,018,	18,671,	14,581,	9,177,	10,604,
Remainder of Enumerated Articles		4,933,	2,366,	2,321,	1,707,	1,989,
TOTAL ENUMERATED IMPORTS		90,167,	83,441,	92,029,	60,005,	77,112,
Add for UNENUMERATED IMPORTS (say)		22,542,	20,860,	23,007,	15,014,	19,278,
TOTAL IMPORTS		112,709,	104,301,	115,036,	75,069,	96,390,

EXPORTS. — (United Kingdom.) — **First Six Months** (*January — June* 1868-67-66-65-64.—*Declared Real Value, at Port of Shipment, of Articl of* British *and* Irish *Produce and Manufactures Exported from Unite Kingdom.*

(First Six Months.) [000's omitted.] British Produce, &c., Exported.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
Manfrs.—*Textile.*	Cotton Manufactures ..	24,322,	27,501,	30,418,	21,630,	22,401,
	„ Yarn	7,664,	7,131,	6,681,	3,959,	4,598,
	Woollen Manufactures	8,571,	9,878,	10,584,	8,034,	9,108,
	„ Yarn	3,423,	2,775,	2,181,	2,436,	2,576,
	Silk Manufactures........	1,051,	728,	869,	901,	1,029,
	„ Yarn	99,	100,	115,	128,	129,
	Linen Manufactures	3,354,	3,797,	4,918,	4,056,	4,085,
	„ Yarn	1,213,	1,834,	1,165,	1,069,	1,480,
		49,697,	53,244,	56,881,	42,213,	45,406,
Sewed.	Apparel	992,	1,027,	1,347,	1,171,	1,136,
	Haberdy. and Mllnry.	2,102,	2,196,	2,803,	2,133,	2,414,
		3,094,	3,223,	4,150,	3,304,	3,550,
Metals	Hardware	1,760,	1,896,	2,131,	1,989,	1,958,
	Machinery	2,004,	2,376,	2,049,	2,593,	2,060,
	Iron	6,918,	6,964,	7,498,	5,829,	6,997,
	Copper and Brass.........	1,577,	1,441,	1,427,	1,614,	1,543,
	Lead and Tin	1,939,	1,621,	1,632,	1,282,	1,567,
	Coals and Culm	2,586,	2,463,	2,416,	2,055,	1,940,
		16,784,	16,761,	17,153,	15,362,	16,065,
Ceramic Manufcts.	Earthenware and Glass	1,197,	1,236,	1,198,	1,055,	1,042,
Indigenous Mnfrs.	Beer and Ale................	1,053,	1,111,	1,159,	1,210,	940,
	Butter	121,	131,	178,	134,	148,
	Cheese	53,	60,	85,	47,	78,
	Candles	110,	93,	110,	46,	63,
	Salt	246,	206,	199,	97,	144,
	Spirits	85,	69,	78,	129,	295,
	Soda	754,	793,	760,	514,	460,
		2,422,	2,463,	2,569,	2,177,	2,128,
Various Manufcts.	Books, Printed	308,	269,	276,	213,	211,
	Furniture	82,	89,	117,	148,	105,
	Leather Manufactures	1,123,	846,	940,	1,197,	1,088,
	Soap	126,	143,	104,	85,	109,
	Plate and Watches	160,	197,	203,	195,	196,
	Stationery	188,	182,	178,	188,	160,
		1,987,	1,726,	1,818,	2,026,	1,869,
Remainder of Ennumerated Articles		4,973,	4,861,	4,886,	4,449,	4,374,
Unenumerated Articles...............................		4,447,	4,099,	4,202,	3,542,	3,613,
	Total Exports....................	84,601,	87,612,	92,857,	74,128,	78,047,

SHIPPING.—Foreign Trade.—(United Kingdom.)—First Six Months (*January—June*), 1868-67-66-65.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Six Months.) Entered:—	1868.			1867.		1866.		1865.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Vessels belonging to—	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	184	61,	332	138	53,	167	58,	151	55,
Sweden	476	85,	178	457	81,	437	81,	385	64,
Norway	1,717	400,	233	1,580	350,	1,571	344,	1,420	303,
Denmark	1,042	113,	108	1,155	126,	988	103,	942	96,
Prussia and Ger. Sts.	1,741	480,	276	1,632	417,	1,798	443,	1,508	345,
Holland and Belgium	909	131,	144	871	112,	1,065	141,	958	128,
France	1,051	102,	97	1,227	113,	1,643	155,	1,401	123,
Spain and Portugal	268	89,	332	242	79,	188	59,	218	69,
Italy & other Eupn. Sts.	269	97,	361	306	97,	531	164,	411	119,
United States	270	277,	1,026	202	213,	230	233,	117	127,
All other States	7	3,	429	6	3,	5	2,	15	6,
	7,934	1,838,	232	7,816	1,644,	8,623	1,783,	7,526	1,434,
United Kingdm. & Depds.	11,630	4,101,	353	11,352	3,969,	12,149	4,111,	10,514	3,260,
Totals Entered	19,564	5,939,	304	19,168	5,613,	20,772	5,894,	18,044	4,694,
Cleared:—									
Russia	215	80,	372	175	57,	200	77,	196	77,
Sweden	450	79,	175	427	82,	436	85,	348	63,
Norway	1,111	242,	218	1,006	327,	1,004	205,	933	196,
Denmark	1,116	125,	112	1,284	143,	935	101,	1,013	106,
Prussia and Ger. Sts.	2,537	618,	244	2,342	477,	2,297	496,	2,007	429,
Holland and Belgium	1,094	178,	163	915	128,	1,033	170,	1,081	164,
France	2,017	218,	108	2,115	153,	2,093	227,	2,009	204,
Spain and Portugal	232	83,	358	215	81,	170	58,	192	61,
Italy & other Eupn. Sts.	411	158,	384	392	122,	602	200,	538	108,
United States	343	324,	943	259	257,	283	288,	158	156,
All other States	7	2,	286	8	2,	10	5,	13	4,
	9,533	2,107,	221	9,138	1,830,	9,063	1,902,	8,488	1,639,
United Kingdm. & Depds.	15,849	5,336,	336	14,510	4,419,	14,672	4,875,	13,734	4,228,
Totals Cleared	25,382	7,448,	293	23,648	6,249,	23,735	6,777,	22,222	5,867,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the* First Six Months (*January—June*), 1868-67-66.

[000's omitted.]

(First Three Months.)	1868.		1867.		1866.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	3,204,	—	2,287,	—	2,617,	1,
So. Amca. and W. Indies	927,	1,770,	857,	2,234,	855,	1,598,
United States and Cal.	4,605,	1,238,	2,357,	612,	6,954,	537,
	8,736,	3,008,	5,501,	2,846,	10,426,	2,136,
France	193,	658,	337,	502,	1,071,	1,084,
Hanse Towns, Holl. & Belg.	41,	102,	44,	186,	287,	861,
Prtgl., Spain, and Gbrltr.	414,	52,	53,	58,	275,	55,
Mlta., Trky., and Egypt	21,	28,	32,	15,	169,	4,
China	—	—	—	—	—	—
West Coast of Africa	55,	3,	76,	2,	55,	8,
All other Countries	469,	34,	294,	28,	145,	27,
Totals Imported	9,929,	3,885,	6,337,	3,637,	12,428,	4,175,
Exported to:—						
France	4,366,	812,	2,220,	523,	5,428,	525,
Hanse Towns, Holl. & Belg.	124,	2,169,	219,	1,941,	857,	538,
Prtgl., Spain, and Gbrltr.	303,	—	347,	—	63,	105,
	4,793,	2,981,	2,786,	2,464,	6,348,	1,168,
Ind. and China (viâ Egypt)	583,	522,	16,	446,	320,	2,433,
Danish West Indies	—	—	—	—	—	—
United States	17,	—	49,	—	83,	—
South Africa	63,	—	—	—	5,	—
Mauritius	—	—	—	—	—	—
Brazil	573,	24,	18,	46,	338,	53,
All other Countries	140,	106,	851,	79,	262,	113,
Totals Exported	6,169,	3,633,	3,220,	3,035,	7,356,	3,767,
Excess of *Imports*	3,760,	252,	3,117,	602,	5,072,	408,
" Exports	—	—	—	—	—	—

REVENUE.—(United Kingdom.)—30th June, 1868-67-66-65.

Net Produce in Years *and* Quarters *ended* 30*th* June, 1868-67-66-65.

[000's omitted.]

QUARTERS, ended 30th June.	1868.	1867.	1868.		Corresponding Quarters.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	5,453,	5,499,	46,	—	5,271,	5,178,
Excise	4,857,	5,028,	171,	—	5,144,	4,865,
Stamps	2,372,	2,547,	175,	—	2,483,	2,490,
Taxes	1,476,	1,506,	30,	—	1,478,	1,407,
Post Office	1,120,	1,150,	30,	—	1,070,	970,
	15,278,	15,730,	452,	—	15,446,	14,910,
Property Tax	2,269,	1,577,	—	692,	1,597,	2,210,
	17,547,	17,307,	452,	692,	17,043,	17,120,
Crown Lands	73,	72,	—	1,	71,	70,
Miscellaneous	664,	402,	—	261,	350,	359,
Totals	18,284,	17,781,	452,	954,	17,464,	17,549,
			Net Incr. £502,078			

YEARS, ended 30th June.	1868.	1867.	1868.		Corresponding Years.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	22,604,	22,531,	—	73,	21,369,	22,304,
Excise	19,991,	20,554,	563,	—	20,067,	19,559,
Stamps	9,366,	9,484,	118,	—	9,553,	9,481,
Taxes	3,479,	3,496,	17,	—	3,421,	3,267,
Post Office	4,600,	4,550,	—	50,	4,350,	4,110,
	60,040,	60,615,	698,	123,	58,760,	58,721,
Property Tax	6,869,	5,680,	—	1,189,	5,777,	7,699,
	66,909,	66,295,	698,	1,312,	64,537,	66,420,
Crown Lands	346,	331,	—	15,	321,	311,
Miscellaneous	2,847,	3,127,	279,	—	2,868,	2,858,
Totals	70,102	69,753,	977,	1,327,	67,726,	69,589,
			Net Incr. £349,468			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 30TH JUNE, 1868:—

An Account showing the REVENUE *and other* RECEIPTS *of the* QUARTER *ended* 30*th* JUNE, 1868; *the* APPLICATION *of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

Surplus Balance beyond the Charge of the *Consolidated Fund* for the Quarter ended 31st March, 1868, viz.:—		£
Great Britain	—	
Ireland	£490,946	
		490,946
Income received, as shown in Account I		18,284,003
Amount raised on Account of Fortifications, &c., per Act 28th and 29th Victoria, cap. 61		100,000
Amount received in repayment of Advances for Public Works, &c.		517,535
Ditto, for New Courts of Justice		17,000
		£19,409,484
Balance, being the Deficiency on 30th June, 1868, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends and other charges payable in the Quarter to 30th September, 1868		4,129,639
		£23,539,123

Paid:—

Deficiency of the Income of the Consolidated Fund in Great Britain in the Quarter to 31st March 1867, for the Charge of the Consolidated Fund in Great Britain for that Quarter (as shown in preceding account)		£ 2,253,124
Amount applied out of the Income to *Supply Services*		12,580,952
" advanced for New Courts of Justice		4,000
Charge of the *Consolidated Fund* for the Quarter ended 30th June, 1868, viz.:—		
Interest of the Permanent Debt	£6,093,910	
Terminable Annuities	931,911	
Interest of Exchequer Bonds	11,375	
" " Bills	34,465	
" Advances on Account of Deficiency	—	
The Civil List	101,737	
Other Charges on Consolidated Fund	461,041	
Advances for Public Works, &c.	338,102	
		7,972,541
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th June, 1868		728,506
		£23,539,123

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *Second Quarter of* 1868.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on a Saturday, 1868.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
April 4	72	6	43	4	27	2
" 11	73	2	43	6	27	5
" 18	73	8	43	10	29	0
" 25	73	11	46	2	28	2
Average for April	73	3	43	11	28	-
May 2	74	2	44	2	28	3
" 9	74	7	43	8	28	4
" 16	74	3	44	4	28	5
" 23	73	10	43	1	29	9
" 30	72	3	43	3	29	6
Average for May	73	9	43	8	28	10
June 6	70	8	40	10	29	10
" 13	67	6	42	2	30	4
" 20	66	1	39	2	29	3
" 27	67	5	39	1	30	0
Average for June	67	11	40	3	29	10
Average for the quarter	71	10	42	8	28	11

RAILWAYS.—PRICES, *April—June;—and* TRAFFIC, *January—June*, 1868.

[Abstract from "Herepath's Journal" and the "Times."]

Total Capital Ex-pended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic. First 26 Weeks. (000's omitted.)		Traffic pr. Mile pr. Wk. 26 Weeks.		Dividends per Cent. for Half Year		
		1st June	1st May.	1st April.	'68.	'67.	'68.	'67.	'68.	'67.	31 Dec. '67.	30 Jun. '67.	31 Dec. '66.
£					No.	No.	£	£	£	£	*s.* *d.*	*s.* *d.*	*s.* *d.*
56,4	Lond.&N.Westn.	115¾	116⅛	114¾	1,358	1,336	3,027,	3,033,	94	100	67 6	52 6	67 6
49,3	Great Western	54	52¼	49	1,369	1,311	1,939,	1,936,	69	64	15 –	12 6	10 -
20,7	" Northern...	103½	103	103	487	441	983,	974,	83	90	75 –	45 -	80 -
28,1	" Eastern	35¾	33⅜	33¾	728	728	916,	868,	53	52	Nil	Nil	Nil
17,0	Brighton	53	52¼	51	336	335	578,	541,	75	80	"	"	40 -
20,0	South-Eastern	77	74¼	73½	340	330	674,	653,	95	102	40 –	20 -	30 -
16,7	" Western....	93	91	87	503	503	664,	635,	61	60	52 6	37 6	45 -
208,2		76	75	73	5,121	4,984	8,781,	8,640,	74	78	35 8	23 11	35 [illegible]
32,0	Midland	107	108¼	105¼	761	701	1,348,	1,323,	70	84	55 –	55 -	62 6
22,7	Lancsh. and York.	129¼	128½	126	403	403	1,245,	1,194,	120	127	65 –	65 -	62 6
15,7	Sheffield and Man.	44¾	—	44½	249	249	504,	523,	87	91	20 –	10 -	30 -
39,5	North-Eastern	103½	103	—	1,248	1,229	1,789,	1,774,	61	65	60 –	50 -	60 -
109,9		96	113	92	2,761	2,582	4,886,	4,814,	84	92	50 –	45 -	53 -
21,6	Caledonian	75	75¼	72	1,391	1,371	1,642,	1,613,	54	53	25 –	52 6	55 -
6,1	Gt.S.&Wn.Irlnd.	97	—	96	420	420	—	—	25	26	45 –	50 -	45 -
345,8	*Gen. aver.*	84	85	80	9,593	9,357	15,309,	15,067,	77	76	40 –	34 7	46 4

Consols.—Money Prices, 1*st June*, 95¾ to ⅞.—1*st May*, 93½ to ⅝.—1*st April*, 93 to ⅛.

Exchequer Bills.—1*st June*, 8*s*. to 13*s*. pm.—1*st May*., 12*s*. to 17*s*. pm.—1*st April*, 5*s*. to 10*s*. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* SECOND QUARTER (*April—June*) *of* 1868.

[0,000's omitted.]

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.				
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
£ Mlns.	1868.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1867. Per ann.
34,98	April 1	11,01	3,98	19,93	24,21	25 July 2 p. ct.
34,73	„ 8	11,01	3,98	19,73	24,62	
34,59	„ 15	11,01	3,98	19,59	24,47	
34,31	„ 22	11,01	3,98	19,31	23,94	
34,39	„ 29	11,01	3,98	19,39	24,15	
34,23	May 6	11,01	3,98	19,23	24,45	
33,99	„ 13	11,01	3,98	18,99	23,98	
34,47	„ 20	11,01	3,98	19,47	23,93	
34,98	„ 27	11,01	3,98	19,98	24,68	
35,73	June 3	11,01	3,98	20,73	24,22	
35,94	„ 10	11,01	3,98	20,94	23,53	
36,32	„ 17	11,01	3,98	21,32	23,53	
36,68	„ 24 ...	11,01	3,98	21,68	23,69	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.				Securities.		Reserve.		
Capital.	Rest.	Public.	Private.	Seven Day and other Bills.	(Wdnsdys.)	Govern-ment.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1868.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,63	6,91	20,29	,52	April 1	13,27	20,70	10,77	1,17	45,91
14,55	3,09	3,89	21,15	,51	„ 8	13,27	18,71	10,12	1,09	43,19
14,55	3,10	4,03	20,16	,48	„ 15	13,28	17,80	10,12	1,12	42,32
14,55	3,10	4,22	20,35	,47	„ 22	13,28	17,83	10,37	1,21	42,69
14,55	3,10	4,80	19,92	,46	„ 29	13,28	18,08	10,24	1,24	42,84
14,55	3,10	5,13	20,21	,47	May 6	13,28	19,24	9,78	1,17	43,46
14,55	3,11	5,77	20,06	,48	„ 13	13,28	19,39	10,01	1,30	43,98
14,55	3,11	6,04	20,32	,48	„ 20	13,28	19,36	10,54	1,32	44,51
14,55	3,11	6,19	20,85	,47	„ 27	13,29	19,27	11,30	1,31	45,18
14,55	3,07	6,49	20,75	,46	June 3	13,29	19,29	11,51	1,23	45,32
14,55	3,07	7,41	20,30	,47	„ 10	13,29	18,85	12,41	1,26	45,81
14,55	3,08	7,99	19,71	,42	„ 17	13,29	18,41	12,79	1,25	45,75
14,55	3,08	8,09	19,53	,47	„ 24	13,29	18,16	12,99	1,28	45,73

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* SECOND QUARTER (*April —June*) *of* 1868; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

England and Wales.					Scotland.				Ireland.		
DATES. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,90).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,64).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,75).	£5 and upwards	Under £5.	[illegible]
1868.	£	£	£	£	1868.	£	£	£	£	£	£
April 4	72,66	2,85	2,46	5,31							
„ 11	65,55	2,92	2,51	5,43							
„ 18	54,18	2,90	2,47	5,37							
„ 25	75,64	2,88	2,42	5,30	April 25	1,75	2,66	4,41	3,35	2,94	[illegible]
May 2	67,65	2,87	2,42	5,29							
„ 9	61,59	2,86	2,42	5,28							
„ 16	55,34	2,83	2,40	5,23							
„ 23	71,00	2,74	2,34	5,09	May 23	1,93	2,88	4,81	3,39	2,94	[illegible]
„ 30	53,95	2,74	2,29	5,03							
June 6	69,69	2,69	2,27	4,96							
„ 13	61,25	2,64	2,24	4,88							
„ 20	74,24	2,60	2,21	4,82							
„ 27	58,01	2,60	2,21	4,81	June 20	1,90	2,93	4,83	3,21	2,65	[illegible]

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON— *collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Paris.				Hamburg.				Calcutta.				
		Bullion as arbitrated.				Bullion as arbitrated.							
DATES.	London on Paris. 3 m. d.	Agnst. Engd.	For Engd.	Prem. or Dis. on Gold per mille.	London on Hambg. 3 m. d.	Agnst Engd.	For Engd.	New York. 60 d. s.	India Council 60 d.s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. s.	Sydney. 30 d. s.	[illegible]
1868.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	*d.*	*d.*	*d.*	pr. ct.	[illegible]
April 4 ..	25·35	—	—	par.	13·10¼	—	—	109¼	23⅛	23$\frac{5}{16}$	51	1½	[illegible]
„ 18 ..	·37½	—	—	„	„	—	—	„ ⅛	„	„ ¼	49½	„	[illegible]
May 2 ..	·35	·1	—	„	„	—	—	110	„	„	„	„	[illegible]
„ 16 ..	·37½	—	—	„	„	—	—	„	„ ¼	„	51½	„	[illegible]
June 6 ..	„	—	—	„	„	—	—	„ ⅛	22⅞	„	52	½ pm.	[illegible]
„ 20 ..	·35	—	—	„	·10	—	—	„	„	„ $\frac{1}{16}$	53	„	[illegible]

Vol. XXXI.] [Part IV.

JOURNAL OF THE STATISTICAL SOCIETY,

DECEMBER, 1868.

OPENING ADDRESS *of the* PRESIDENT *of* SECTION F (ECONOMIC SCIENCE *and* STATISTICS), *of the* BRITISH ASSOCIATION *for the* ADVANCEMENT *of* SCIENCE, *at the* THIRTY-EIGHTH MEETING, *at* NORWICH, *August*, 1868. *By* SAMUEL BROWN, ESQ., F.S.S., *President of the Institute of Actuaries.*

IN the able and eloquent addresses which have been given in preceding years at the opening of this Section, the nature and objects of the divisions of science, in which we are more especially concerned, have been so clearly pointed out, that I do not propose to occupy your time with definitions and reflections, but rather to take a hasty view of the principal questions which, since our last meeting, have come prominently before the public, and which are likely more especially to interest the students of our science.

Whether under the head of Economic Science or Statistics, the range of subjects is so wide, the interest so intense, and their importance to the public so vast, that it is almost as difficult to select, as it would be to confine within proper limits the full history of the past year. Thought is so busy, and civilisation (if we may use the term generally to indicate an improvement in the social condition of nations) advancing with such rapidity, that new subjects are continually thrusting themselves into notice and discussion by the different classes whom they most affect. It is essential, however, to make choice of a few leading features, and one topic which has during the past year, and is now exciting a very lively interest, is that of technical education.

Technical Education.

A very strong impulse has been given to the discussion of this question by the various comparisons of the World's industry, which, ever since the Great Exhibition of 1851, the success of which was so much owing to the far-seeing intellect and earnest purpose of the lamented Prince Consort, have enabled all nations to measure their respective progress in science and art, by the actual results of their manufactures and industries in every branch. Many persons have expressed alarm lest other nations which have discovered their deficiencies, and have set to work with energy and determination to remove them, should leave this country behind in their applications of knowledge, by introducing and maintaining a more practical, if not a higher standard of general education amongst the people. Without going too far back to the frequent discussions to which this subject has given rise, it will be sufficient to refer to the report of the committee appointed by this Association to consider the best means for promoting scientific education in schools, which was presented at the last meeting at Nottingham. The committee admit the existence of a general and even national desire to facilitate the acquisition of some scientific knowledge by boys at our public and other schools; and a very interesting account is appended of the progress which has already been made in Oxford, Cambridge, the University of London, and the College of Preceptors, as compared with the French and German schools. The conclusions of the report are highly practical, and recommend that in all schools natural science should be taught; that at least three hours a-week should be devoted to such scientific instruction; that as to honours and prizes, it should be placed on an equal footing with mathematics and modern languages; that universities and colleges should be invited to make it a subject of examination, and that the importance of appointing lecturers, and offering entrance scholarships, exhibitions, and fellowships, should be represented to the authorities of colleges.

No mention is here made of the extent to which, or the mode by which, the Government might be called upon to aid in improving the technical education of the country. In the early part of this year, however, a conference, called by the Society of Arts, brought together a great number of the most eminent statesmen, men of science, teachers, and representatives of manufactures and commerce, by whom this important subject was for two days discussed under all its varied aspects. It would be invidious to mention names, when nearly all the distinguished thinkers who have so long worked for the educational improvement of the people, contributed their part to the discussion. The resolutions were general, giving only the broad outlines of the opinion of the meeting, as it was intended to appoint a sub-committee to carefully examine and report on the details.

The report of the committee, which was not delivered in till the 21st of July last, states that the conclusions they had arrived at were in substance, that technical education, as referred to them, excludes the manual instruction in art given in the workshop, rather meaning general instruction in those sciences, the principles of which are applicable to the various employments of life. It should be given, not in separate professional institutions, but in those for general education. It is desirable that schools should be established, having for their main object the teaching of science as a mental discipline. It is necessary to introduce scientific teaching in all secondary schools. The higher scientific instruction should be tested by public examinations, and the proficiency of the students certified by diplomas. In detailing the course of instruction for certain businesses, such as agriculture and gardening, chemical manufactures, metallurgy, mining, civil engineering, mercantile marine, that of the naval architect and marine engineer, the mechanical engineer and machinist, the architect, and the merchant, the scientific instruction should be followed by practical pupilage in efficient workshops or establishments. A great advance in technical education might be expected, if the employers of labour would generally give the preference to those who produce evidence of having been adequately instructed in the sciences applicable to their particular occupations.

These are practical suggestions, but the question itself opens up nearly all the points or theories to which the discussion of the general education of a people has given rise. Is it to be expected that ignorance would seek for instruction of its own accord? If scientific instruction is to be brought down to the lower class of labourers, by what means shall the parent who prefers utilising the manual labour of his child at an early age, be compelled to spare him for the higher duty of instruction in order that he may be enabled to earn more for himself hereafter.

It seems admitted, that if better instruction is given in the secondary schools, it must also be improved in the primary, as there is evidence to show that there is little disposition in scholars to take to the higher class of learning without having received the elements of it at least in the earlier stage. It is also proposed that children should remain longer at school. How will this affect the labour market, and will the greater skill acquired compensate for the delay?

The attempts which have been hitherto made to bring lectures and laboratories within reach of the working classes, do not appear to have been very successful, nor, as a general rule, do the employers of labour, who, we should imagine, would most benefit by the increased intelligence of their workmen in their special art, give much encouragement to the efforts of those who have so patriotically devoted themselves to this object. In Cornwall, the mining institution failed in its expected effects by the original defective education of the working classes, who, unable to read easily, or to take notes, or to do the simple arithmetic required for the calculation of the percentage of ores, soon grew tired of lectures they could not follow with interest. Professor Huxley points out, that the School of Mines, in Jermyn Street, was not established by the mining interests, but by the eminent geologist Sir H. De la Beche, and that very few pupils attended until recently, when by the offer of pecuniary rewards and medals, and the prospect of appointments hereafter, 600 or 700 average papers were sent in for competition in some branches of science, and 1,200 or 1,300 in chemistry. This seems to indicate the right method by which the friends of technical education might stimulate the classes to whom the higher rewards are not accessible. Associations might be formed, so that in the various branches of study the united subscriptions would allow of studentships being given, tenable for three or four years. By these means the young workman, or even one more advanced in life, may not only gain the reward of his ability, but obtain some compensation for the diminished wages which may temporarily follow the giving up a portion of his time to increase his skill hereafter. The employers of labour of all kinds, but especially those in which the higher ability required renders a considerable premium only a fair price for admission to the business, might tempt many from the overcrowded professions, by a judicious offer of remitting the premiums where high distinction has been gained. Probably the cost to themselves would be in many cases soon more than compensated by the higher theoretical knowledge brought earlier into use.

In connection with this subject, it is impossible not to feel that the munificent gift of Mr. Whitworth deserves the heartfelt gratitude of the nation. What effects will be produced by thirty scholarships of the annual value of 100*l.* each, in a single branch of applied science so important to this country as engineering and mechanical industry, it is difficult to calculate. Not merely the succession of new aspirants every three years, but the numbers who, though falling a little short of the splendid prize, will yet have given all their powers of mind to obtain it, may be expected to create an impulse and maintain a mental activity which will not allow England to fall behind in her continental rivalship. It is not to be expected that many individuals can offer singly so noble and patriotic a gift, but they may combine together, and thus, by the union of isolated efforts, institute similar rewards for proficiency in other arts or occupations. That there is amongst our industrial classes a large number of intelligent and skilled workmen, with ability to compete for similar prizes, may be seen in the admirable volume of reports of the artisans, selected by the Society of Arts to visit the Paris Exhibition, and published by the society. The deep knowledge of their particular industry, the general keenness of observation, the common sense, and in many cases talented style of writing, besides the variety of the contents, make it a volume of remarkable interest, highly creditable to the class from whom they were selected.

In the higher branches of science, the universities, colleges, and great schools, with their wealthy endowments, will be called upon to move with the times; and there are signs of their already preparing to respond in a suitable manner to the voice of the nation. The offer of fellowships, scholarships, and exhibitions, may be made to suit all grades of scientific requirements. Though it may sensibly diminish the number of classical rewards, it is probable that it would not really lower the high standard of classical excellence in the country, whilst it would raise up a fresh career in which renown may be won. Many who by other inclinations may not be the first in classical studies, may achieve a world-wide fame for the university or college of their choice, by their attainments in science instead.

In what manner the Government may best be able to second the efforts of the friends of education, is as yet undecided. Some suggest that they should establish secondary, or higher schools, in the locality of a particular industry, and adapt the teaching to the special wants of the population around. But the question arises, are these schools to be founded in places where no special desire is felt for the higher instruction offered, or in other places where the voluntary efforts either of the masters or workmen, or both, only require additional aid to render them effective? It may be said, that the former need it most, for how are we to overcome ignorance or apathy, if the State will not be at the expense of exciting at least a desire for improvement, and teaching the people the advantages and pleasures of knowledge. On the other hand, are those who have proved their earnestness by pecuniary sacrifices to be left to struggle on feebly, whilst others who are indifferent to scientific education, have it brought to their doors? Others again, consider that schools for special science, at any rate for the labouring classes, have generally failed of success, and that the best plan is to improve education generally, giving it a higher tone, both in the primary and secondary schools, and making science more a part of the general study, but with special application of it for the pupils of more advanced ages.

The evidence in the Report of the Select Committee of the House of Commons on the subject, which has recently appeared, gives an encouraging view of the practical skill of our workmen in nearly all branches of industry, leaving no reason to fear the rivalry of foreigners in mere handicraft. But the competition in commerce and manufactures is so close in the markets of the world, that the superior technical education of the continental workman, enabling him to adopt so readily any new processes or improvements, gives him manifest advantages over the English workman. It is essential for our industrial classes to be better instructed in science and its applications, and be less liable to fail by clumsy inventions and costly errors.

On the whole it would seem, that the action of the Government will be most beneficially exerted in the first instance by extending the system of grants in aid of local exertions, by adding to the emoluments of teachers who produce evidence of the higher class of instruction having been efficiently imparted, and by aiding in the cost of building where new schools of a special scientific character are needed. Above all, the stimulus of endowments or exhibitions of adequate value, or the offer of Government appointments in such departments as science can be most usefully applied in, will probably produce the most profitable results for a national expenditure.

Labour and Capital.

Another subject, vitally connected with maintaining the position of this country in its competition abroad, as well as with its peace and prosperity at home, is the relation of wages to capital. For many years the most violent discussion has been going on; but it really appears as if some progress has been made during the past year in an amicable solution of the difficulty. The opinion that labour and capital must be in antagonism, each trying to subdue the other to its own terms—an opinion which can only be entertained in complete ignorance of their relative functions—is becoming gradually undermined, and the earnest efforts of some of the most practical and enlightened employers of labour, aided by the increased intelligence and better feeling produced by conciliation on the working classes, have allowed some important experiments to be fairly tried to reconcile the two opposing foes, and to bring them into harmonious working together. It is true the beginning is feeble, and what is accomplished, small, compared with what remains to be done. It is now generally admitted that a better knowledge of the principles of political economy, and of the laws which regulate wages and capital, the production and distribution of wealth, would be beneficial to all parties. A most influential general committee has been formed under the auspices of the National Association for the Promotion of Social Science. In an evening meeting, at which the Right Hon. W. E. Gladstone presided, the question was debated, and certain general principles laid down for the course of proceeding. But the work to be accomplished is of the most laborious character. The mass of prejudice to be overcome on both sides is the growth of years, and it yet remains to be seen how the interference of a third party, though professing to represent impartially the interests of the public, and the true principles of economic science, will be received by either. It is to be hoped, at any rate, that the clumsy and barbarous system of strikes and locks-out, which destroy both the small savings of the workmen and the capital out of which he hopes to increase his wages, and which keep up a perpetual source of irritation and ill-feeling, will be abolished as an insensate and reckless process. Trades' unions are contended for by some as useful and effective, if not carried on to the injury of the trade, or to the detriment of the nation, and provided the members pursue their own objects without undue coercion of others. But without coercion and oppression how can they fulfil their objects? The limitation of times of labour, the depression of the sober, industrious, and most skilful workman to an average level of the more idle and unskilful, the exclusion of apprentices, and the dire effects in other branches of the trade or manufacture in which, without wishing to strike themselves, the workmen are dependent on the continued labour of others, who will not work, naturally drive capital away into other countries or other trades, and thus leave the infatuated workman with worse prospects of success than when he began the strike. Nor can we pass over the selfishness with which one branch of occupation frequently pursues this system of strikes without reference to others, who, though unwilling to throw up their employments, are forced into unprofitable idleness, misery, and want that other classes may better themselves by higher wages. The whole of this false and dangerous system must be superseded by some other scheme or schemes which will unite in harmonious working labour and capital. It is not necessary that there should be but one remedy. The excesses of the working classes of France in the Revolution of 1848, and their vote to expel the English workmen, led to the indignant remonstrances of the French political economists, and eventually to the institution of the Conseil des Prud'hommes, courts of arbitration, and industrial partnerships, which have had the happiest effects. In France, in the ten years 1830-40, Mr. Mundella informs us the courts of arbitration have adjudicated on 135,730 cases, of which 128,319 were amicably settled; 3,530 withdrawn by consent; 3,881 judgments pronounced, from which there were only 155 appeals. In Nottingham especially, according to the testimony of Mr. Mundella, the working of the board for seven years up to the present time, has been most favourable, and in the highest degree satisfactory both to the employers and the employed. The board consists of an equal number of masters and workmen on each side, with a president chosen by consent, and for three years and a-half they have been enabled to agree on all points in debate without the necessity of coming to a vote. The system has recently been extended to Hawick, North Britain, and to the Potteries. The Council of the Amalgamated Trades' Unions passed a resolution, desiring the establishment of these boards, in all branches of their union, and there seems little doubt that the courteous and kindly meeting together to settle in common questions which were formerly sources of hostility and irritation, would, if introduced in all trades, have a wonderful effect in uniting two classes so essentially necessary to each other as the capitalist and the labourer.

But there appears to be even a more powerful mode of co-operation, because it appeals more directly to the self-interest of the working classes, viz., industrial partnerships, in which the masters and workmen may unite together. Co-operative stores imply a combination of consumers to cheapen the price of articles purchased, but their tendency is naturally to dispense with the class of dealers or middlemen, and by the saving of the profits formerly gained by them, the consumers benefit at the cost only of the relatively small expenses of managing the stores. But what would become of the class of dealers or tradesmen, if this principle was generally acted upon? In admitting the workmen into partnerships of production, the greater part of the difficulties between labour and production seem to vanish. As every one of the partners is interested in increasing the profits, he can have no wish to stint his own labour, or to check in any way the labour of others. He not only is careful not to waste the materials himself, but he keeps a vigilant eye that his fellow workmen may be equally careful. He is led to understand the accounts of a firm, and the causes of depression and prosperity of trade. Strikes frequently occurred when from the closeness of foreign competition the market could least bear them; the workman, when a partner, sees that at such times his profits would be diminished by any check to, or increased price of, labour.

The most remarkable and encouraging example of the new system, was given in a paper by Mr. Briggs, read before the Social Science Committee of May last, on the Whitworth collieries. In ten years there had been four strikes, involving cessation of work for seventy-eight weeks. During the whole of that period the annoyance and anxiety of the partners were extreme. The profits were reduced to little more than 5 per cent. on their invested capital. They were compelled to evict families from their cottages, in order to introduce new labourers for their works. The police were required in large numbers for the protection of the non-union men. At last the painful struggle terminated in a riot in the village, the ringleaders of which were convicted at the York Assizes in 1863. But in 1864 the proprietors determined to take the whole of the men into partnership, and a limited liability company was formed from 1st July, 1865, of which they retained two-thirds of the capital, the remainder being allotted in shares to be purchased by the men. After paying a moderate rate for wages and management, and the proper allowance for reserves and depreciation, any excess over 10 per cent. of the profits was to be allotted half to the capital, and the other half as a bonus to the workmen in proportion to their earnings. At first they were suspicious, but the plan succeeded so well, that in the very first year the dividend was 12 per cent., and the 2 per cent. which was allotted as a bonus on wages, allowed of an average increase of 7½ per cent. to the work-people on their earnings. In the second year, 80 per cent. of the workmen took shares, the profits were 13 per cent., and the 3 per cent. bonus allowed an average increase of 10 per cent. on the workmen's earnings, besides setting by 9 per cent. on the capital as a reserve fund. The village has been perfectly peaceful, the work-people have become sober, industrious, and respectable in their conduct, and they generally invest their profits in the extension of the business. There has been no dispute and no charge of neglect of work made. This is not a small experiment, 1,200 men and boys have benefited by the operation, and 90,000*l.* of capital is invested in the concern.

With modifications adapted to different trades, this system seems worthy of a wide extension. The proper rate of bonus for labour must, no doubt, depend on the proportion which the labour bears to the other costs of production and of bringing the article to market. Competition of foreign countries, variations in supply and demand, may prevent wages bearing a fixed proportion to the other capital required, consequently the bonus to wages may have to be adjusted in different manufactures or trades. But some of the best of the trades' unions have declared themselves in favour of the trial of this scheme, and the commercial greatness of England is deeply interested in its success.

Insurance.

Leaving subjects still so full of doubts and difficulties, we turn to one which, though established upon laws of nature equally recondite, has been pushed into practice with an energy and success highly creditable to this country. It would be inexcusable in this city, in which have been founded two amongst the greatest and most enterprising of our insurance companies, which under the able management of Sir Samuel Bignold, one of the vice-presidents of this Section, have obtained so wide a reputation, and to whose representative in London, Mr. C. J. Bunyon, we are indebted for the best works which have appeared on the law of fire and life assurance, not to allude to the progress which these valuable institutions have made in this country. Vital statistics are now assuming a form which enable the most complicated problems of human life to be dealt with as if they were certain and simple events. Yet little more than a century has elapsed since the Attorney and Solicitor-General of that day, when reporting on the application for a royal charter to the first society formed on scientific principles for the assurance of life, objected to it on the ground that its success must depend on calculations taken on tables of life and death, whereby the chance of mortality is attempted to be reduced to a certain standard. "This is a mere speculation," they observe, "never yet tried in practice, and consequently subject, like all other "experiments, to various chances in the execution." Further, considering that the general tables include both healthy and unhealthy lives, they thought that "the register of life and death "ought to be confined, if possible, for the sake of exactness, to "such persons only as are the objects of insurance." It was argued, to show the small probability of success for the society, that the Royal Exchange Assurance, in forty years, had taken only 10,915*l.* in premiums, of which the profits amounted to only 2,651*l.*, must have been nearly exhausted in the charges of management. They would hardly expect a more considerable capital to arise from lower premiums, and the hazard of loss will be increased in proportion as the dealing will be more extensive. The petition was dismissed, but the society (the Equitable) was formed, and in spite of the gloomy prognostications at its birth, had afterwards, at one time, nearly 20,000,000*l.* of assurances on lives in force together. About six years back, from an estimate made on a large proportion of the companies in the United Kingdom, it was computed that about 372,000,000*l.* were assured upon lives; and at the rate of progress made of late years, it is probable that this is now increased to 400,000,000*l.* But a still more remarkable extension of this kind of business has, within a few years, taken place within the United States of America. At the close of 1866, thirty-nine companies doing business in the State of New York, had about 305,390 life policies in force for upwards of 173,000,000*l.*, which at the end of 1867 had increased to 403,841 policies for 233,400,000*l.* A single company, the Mutual of New York, had issued in that one year 19,406 policies for 12,450,000*l.*, taking in new premiums upwards of 801,000*l.* The assurances in that company alone amounted to nearly 39,000,000*l.*, being almost three times the amount at present existing in our largest office in this country.

Considering the great pecuniary interests at stake, the discovery of the true law of mortality is of deep importance. The theory of that eminent mathematician, Benjamin Gompertz, F.R.S., that there is in the human frame a power to oppose destruction, which loses equal proportions in equal times, and consequently that the intensity of mortality is represented by a series in geometrical progression, was founded upon actual observations of numerous tables. Such a theory is congruous with many natural effects, as for instance, the exhaustions of the receiver of an air-pump by strokes repeated at equal intervals of time, and it has been confirmed for long periods of life in most of the tables of original observations which have been made. There is a marked difference, however, in the constants of mortality in three principal periods of life—childhood, manhood, and old age. There are also exceptional or climacteric years of life, and from the variety of circumstances which may affect health or life, such as occupation, locality, habits, exposure to disease, &c., so many peculiarities in each class of observations, which themselves may have been incorrectly or imperfectly collected, that it is very difficult to detect in any what may be called the true or universal law of mortality.

A very important inquiry is now being made, under the auspices of the Institute of Actuaries, into the actual experience of some of the older companies. The facts relating to 147,000 persons admitted after medical examination as healthy lives, of whom about 24,000 had died, afford ample materials for many interesting deductions in vital statistics, and are especially valuable for the accuracy of the records. A similar investigation is being made in Germany and in the United States of America, conducted by scientific institutions of a like character, and by some of the leading mathematicians of those countries.

It is to be regretted that no authentic information as to the total amounts insured in various branches is known in this country. In fire insurance a rough estimate, deduced from the duty, would give about 1,445,000,000*l.* in 1867, including nearly 80,000,000*l.* on farming stock. The total amount of marine insurance business is equally uncertain, though it must be increasing with the rapid strides of commercial enterprise. Mr. Morris Black, in his analysis of the accounts of marine insurance companies established since 1859, gives the premiums received by eleven of these companies in 1867 as nearly 2,800,000*l.*, insuring about 227,000,000*l.*; but this does not include the five oldest and largest companies, nor the great amount underwritten by the members of Lloyd's. The total value of shipping and commercial products liable to risk in voyages between different ports would be the more interesting, as the Statistical Committee of Lloyd's have for the last two years, by the aid of their honorary secretary, Mr. Jeula, collected and compared some of the most striking results of the accidents and losses in which, as a great maritime nation, we take so great a share. In

10,587 vessels in 1866, to which accidents of some kind happened, and 11,424 vessels in 1867, the accidents of different kinds, whether sailing vessels or steamers (the latter being about 10 per cent. of the total), show a remarkable regularity in the percentage, and indicate the value of a more extended inquiry. The tables comprise losses and casualties in all parts of the world, and are divided into thirty-one geographical sections, for the voyages between the ports in each section. With these and the annual wreck registers of the Board of Trade for the dangers nearer our own coasts, and fuller statistics from our own and foreign countries, on a uniform plan, of the amount and value of shipping and cargoes passing from port to port in different trades, we may expect a great increase in our general knowledge on these subjects.

At the Statistical Congresses held in Paris in 1855, and at Berlin in 1863, it was recommended to collect the statistics of all branches of insurance, in such a form that the progress of nations therein might be compared. The heads of the Government Statistical Departments of several countries are now engaged in maturing a plan for comprehending these and other commercial statistics in a full report.

Electric Telegraphs.

One of the most important aids to the social and commercial progress of any country, is the facility in the means of personal intercourse, and especially of frequent communications by post and verbal messages. Good roads and railroads, giving rapid and cheap means of transport both for passengers and goods, are essential to the increase of internal trade. But equally essential is the power of sending swift and accurate messages, and receiving prompt and correct replies. The annual extension of the postal and telegraph system, is a striking proof of the mental activity and growth of the internal trade of the country. In 1867 the letters delivered had reached nearly 775,000,000 in the United Kingdom (being 3½ per cent. excess on the previous year, and averaging 144 letters to each inhabited house). The book packets were more than 102,000,000, being an increase of one-half per cent. on the previous year. The receptacles for letters were 17,225, being 1 to every 312 inhabited houses.

Whoever originated the idea of the penny post, the nation will always feel that it is to the ability, the energy, and the perseverance of Sir Rowland Hill that we are indebted for the inestimable benefits which have followed the realisation of the idea. In the history of the progress of the age his name will be always conspicuous.

The success of the Post-office, and the enlightened readiness with which every improvement is adopted and the wants of the public supplied, give us reason to hope that what many regard as a very questionable interference with private enterprise, in the proposed purchase of the telegraph property of the whole kingdom, in order to place it under one management, will prove eminently for the public benefit. The facilities possessed by the post office in having money order offices and employés who at a very slight additional expense may work the telegraph in localities in which it would scarcely pay profit to the companies to form new stations, are likely to create and satisfy the demand for numerous extensions. In populous places, from which the profits are mostly now derived (it is stated that 75 per cent. of the entire receipts are from fifteen towns, and one-half from London), the combination of the pillar-post and stamped paper for telegraphs in the suburbs, the saving of extra charge for distances in the delivery, and all over the country an uniform and cheap rate, will no doubt lead to an immense development of the system. It is highly probable that in a short time an uniform charge of 6*d.* a message of a certain length will be established. The consequence will be felt as well in the convenience of private intercourse, as in the internal trade of the country in bringing distant markets together, and, by increasing the competition, obtaining a greater approach to equalisation of prices for the great benefit of the public. It is assumed that the number of telegraph messages is increasing at the rate of 10 per cent. per annum, and that on the 1st July, 1869, the Government will start with the estimated number of 7,500,000. Supposing that present charges of 65,000*l.* a-year may be saved by amalgamation of all the lines, and allowing for various costs, for extension, &c., a maximum net revenue of 358,000*l.*, or minimum of 203,000*l.* per annum is Mr. Scudamore's calculation, with which Government credit would more than raise the capital of 6,000,000*l.* required for the purchase. But it is scarcely possible that with so many interests, still to be settled by arbitration before the money bill can be brought in in the next Parliament, that even this large sum will suffice to complete the purchase. There is nothing to prevent the Government competing, if the public interest required it, without laying out so large a sum for the purchase of interests which are not vested. But besides the natural feeling of the public against the unfairness of destroying, and the risk of discouraging, private enterprises which have produced, or are calculated to produce, such good results for the country, there is no doubt that the machinery and arrangements already complete, and the facilities afforded by the railway leases, form a basis for immediate improvements which will so much the earlier repay the outlay. The other objections, that Government may use the lines for favouritism or for political purposes, that they would have the command of all the secrets of private individuals, as well as those of their public opponents, that they might harass the press by delays, or transmit news to one journal to the exclusion of another, appear either to excite no alarm, or to have been met, as in the last case, by a judicious compromise and the formation of a company to collect news for themselves. On the whole there seems reason to hope that this great experiment may be tried in the course of next year, and that no fresh agreements with the companies which would be still more costly, will be rendered necessary by delay.

Conference on Weights and Measures.

During the past year there have been several important congresses in which the British Association has been either interested or represented. The Metric Committee, which was reappointed in 1866, united its efforts to those of the International Decimal Association to obtain a special exhibition of the weights, measures, and coins of all countries in the Paris Universal Exhibition. The Imperial Commission applied to all the Governments of Europe and America to send copies of their standards, and to appoint delegates to take part in a conference to be called for a full discussion as to the best means of obtaining an uniform system for all nations. The exhibition, which appeared to excite great interest, was held in the pavilion, in the central garden. It had the great advantage of showing by contrast the singular simplicity and beauty of the metric system of weights and measures as compared with all others. The conference, at which delegates officially appointed by the Governments of all the leading countries attended, was presided over with great ability first by M. Mathieu, member of the Institute of France, and afterward by his Imperial Highness Prince Napoleon; and after a full discussion on an able report prepared by Dr. Jacobi, Member of the Imperial Academy of Sciences at St. Petersburgh, it was decided to recommend the universal and sole adoption of the metric system,—not a single voice being given against it, nor a single word said in favour of any other system. Strong resolutions were unanimously passed also at the International Statistical Congress, held at Florence in October last, recommending its universal adoption, advising that associations should be formed in all countries where it is not yet introduced, to prepare the way for it and make its advantages known, and that it should be taught in Govermental schools, and used in all post offices, custom houses, and public establishments.

In this country, where the Metric Weights and Measures Act, 1864, renders the use of the system legal, the singular anomaly still exists that no provision is made for stamping and verification by the standards, and consequently parties may be liable by one Act to the usual penalties for using such weights and measures, although by another, contracts made by them therein are lawful. The Act indeed is so defective, and the progress of the system so great, that another Act was introduced in the session just closed to make it compulsory within some given period to be fixed in committee. Mr. Ewart, together with Mr. Bazley, Mr. Baines, Mr. J. B. Smith, and Mr. Graves took charge of the bill, and after an animated debate, the second reading was carried by the large majority of 217 to 65. It was set down for committee on 1st July, but the state of public business prevented its being proceeded with. It will be one of the questions of great, if not pressing, importance for early consideration by the new Parliament.

The first report of the Standards Commission which has just been presented, shows the necessity of the establishment of the Standards' Department, which carried out one of the recommendations of Mr. Ewart's committee. Several indications are given of progress in the decimal system. The metre also has been laid down from the authentic metre in the possession of the Royal Society, and the kilogram verified by Professor Miller transferred from the Royal Observatory at Greenwich, and steps have been taken to procure a complete series of the weights and capacity measures of the metric system. But as to the probable effect of its introduction into this country, the commission have not yet had time to examine the numerous papers which have been collected, but admitting its importance, will give it their early and best attention.

In the meantime the confusion and intricacy of the weights and measures in our vast dominions in India, have led to the appointment of Commissions to introduce a thorough reform. The metric system has been recommended by Colonel Strachey, F.R.S., president of the Indian committee, as the best system for entire and exclusive adoption throughout India, and this view has been supported by two Commissions. Mr. Charles F. Gover, in a very able paper on uniform metrology for India, proves that formerly not only was the decimal system universal in India, but that the ancient measures of land and the original basis of the present system of linear measures was almost identically the same as the metre—39·3 inches (for 39·37079 inches).

The only cause for delay in introducing an uniform system in India, seems to be the idea that the imperial weights and measures will still retain their position in England, and that their system must have some easy relationship with what prevails here. But the metric system is admitted to be the best, and if it should be finally adopted here, all that vast population would be exposed to the inconveniences of a second change.

In the United States of America, the metric system is permissively legalised, but more completely than in England, by the introduction of the standards for verification. The official delegates of America have declared that the United States would follow England in making the use compulsory. If England took the lead, India and all our colonies would unite with us. The system which is now legal in whole or in part, and either compulsory or permissive, amongst 275,000,000 of people, would then comprise upwards of 450,000,000 of people using the same weights and measures, with decimal subdivisions and multiples in the simplest and most perfect form either for calculations or commercial use.

One hundred years ago such an idea might indeed seem utopian, as would also now be the notion of finding acceptance for another universal unit. But when by peculiar circumstances such rapid progress has been made towards uniformity, it is practical wisdom to seize every opportunity to promote it. In science, in commerce, in education, in international intercourse, in statistical inquiries, it is difficult to picture the vast benefits that would result from the adoption of one and the same unit by all civilised nations.

Monetary Conferences.

Far greater difficulties and differences of opinion lie in the way of a monetary unit of account, or even uniformity of metallic currency for the leading commercial nations; yet a great movement has been going on therein during the past year. The conference, in connection with the Universal Exhibition at Paris, over which Prince Napoleon presided, discussed and agreed to resolutions, that the different Governments should adopt a common base or unit in the issue of their gold coins; that it should be of the same fineness, nine-tenths; and that in each country there should be one piece at least equivalent to one of the pieces in another country, so that there might be a point of contact in the currencies of all countries. The 5-franc piece in gold was finally adopted as the basis, since the multiples thereof would very nearly accord with the monetary units of several countries. M. Wolowski, the distinguished economist, defended with great eloquence and energy the double standard of silver and gold, but he found no seconder. A single gold standard, and everywhere the decimal subdivision of the unit were carried as the nearest means of obtaining some coin everywhere current and values easily translated into those of foreign nations.

But the International Monetary Conference, which was called about the same period in June of last year by the French Government, is likely to produce still more definite results. All the leading Governments of Europe and America sent official delegates to represent them. The basis taken by the conference, subject to such improvements as might be suggested, was the convention concluded the 23rd December, 1865, between Switzerland, Belgium, France, and Italy, for a common currency; by Article 12 of which convention the right of accession was reserved to any State which would accept the obligations and the monetary system of the union as far as regards the gold and silver coins. The delegates did not appear to have any authority to bind their respective Governments, except that of Austria, for whom the Baron von Hock at the end of the conference negotiated and signed a preliminary treaty of adhesion to the Convention of 1865. In the early part of 1867 the Papal Government had joined the Convention, and in April of the same year the currency of Greece was remodelled on the same system.

The French Government were anxious to obtain some definite answers to the propositions of the congress, in order to call a new congress with more extended powers; but no definite time was fixed for the replies, some voting for replies by the 1st October last, and Great Britain for an extension to the 1st June of this year. The report of the English delegates, Mr. Graham, Master of the Mint, and Mr. Rivers Wilson, of the Treasury, has been referred to a royal commission for their opinion whether Great Britain would be justified in making any changes in her currency which would allow in any way of her joining the monetary convention. This report, with the evidence taken, is anxiously expected.

It does not appear that a merely international currency of one or more coins would compensate for the trouble and inconvenience of altering even to a slight degree (one grain is all that would be required) the quantity of pure gold in the pound sterling. But a common unit of account would offer manifold advantages. An international unit of 10 frs., which would have many advantages over 5 frs. as the smallest gold coin, subdivided decimally, would at once give in all commercial quotations, and in all statistical records precisely the same figures. All nations who accepted it would use the same language of value, and instead of the 5, 15, and 25 frs., as suggested by the congress, which would require constant computations in the translations of different languages, only 1, 10, or 100 would be used, in which values in every country would always be expressed in the same figures.

If pure theory were to be insisted on for all the nations adopting the metric system of weights and measures, 10 grammes of pure gold, without alloy, should be the unit of value = 34·44 frs., or very nearly 1*l.* 7*s.* 6*d.* But this would necessitate the coinage of all their gold and silver afresh, the gold alone being estimated to be 280,000,000*l.* sterling in those States which have joined the convention, as well as 360,000,000*l.* in other continental States which may join it hereafter, and 60,000,000*l.* in the United States.

In Great Britain the gold coinage, though uncertain in amount, is not generally reckoned at more than 100,000,000*l.*

We must, therefore, take a practical view of the proposition, and it would not be to the credit of this country, with its great influence in commerce, and its pretensions to a high place in social progress, to withdraw from conferences in which other nations are taking so active a part, in questions so likely to promote the peaceful intercourse and prosperity of all.

Statistical Congress.

The other congress in which this Section is particularly interested, was the International Statistical Congress, which, after four years since its last meeting in Berlin, was invited by the Government of Italy to meet in Florence in the early part of October last year. The statesmen, learned professors, and social reformers of Italy formed a larger body of natives, 632, with 85 foreigners, than even the Congress in London in 1860. The King had nominated his eldest son, Prince Humbert of Savoy, as general President, and his Excellency the Minister of Agriculture, Industry, and Commerce (S. de Blasiis), took a most active part in the proceedings. The effect of these congresses, of which six have been held since 1853, is seen in the great improvement in the form of collecting Government statistics of all kinds. By uniformity of methods and principles, not only may the relative progress of nations be compared, but the phenomena of political and social economy examined under different conditions and varying aspects. Thus the law of the production and distribution of wealth, of the growth or decay of population, the causes of early or late marriages, the effects of emigration on the country left or adopted, the best means of the prevention or suppression of crime, the evil effects of great standing armies, interfering with the production, or causing wasteful consumption in a country, and numerous other questions of the highest interest to society at large, may be traced on the broad map of a continent, instead of the narrow limits of a single country.

At each successive meeting the able and earnest men, who as Government officials really have influence to carry out the resolutions agreed to, have discussed nearly all the subjects on which national prosperity depends. The summaries of the previous reports by Dr. Engel, of Berlin, and Dr. Maestri, of Florence, are full of matter for reflection, laying down the principles on which every possible statistical question ought to be studied.

An attempt is now being made by some of the leading members, animated and guided by M. Quetelet, who may be considered the founder of these congresses, to collect on an uniform plan the comparative statistics of all nations under the principal heads. The first volume, on population, was presented by M. Quetelet at the last congress, and is an admirable *résumé* of hundreds of scattered official volumes. It is to be followed by other compilations in different branches of statistics, showing that these meetings have not ended in idle discussions, but will assist the philosopher in his studies as well as the practical man in his efforts to promote the social improvement of the people.

On the suggestion of M. Quetelet a section will be formed in the next congress especially to examine statistical subjects in their direct relation with the theory of probabilities. The laws of the recurrence of events will thus be eliminated, and many questions which are now obscure may, by due value being given to the weight of observations, be reduced to correct or approximate theory.

Such congresses and meetings like the present enable all those who are engaged in a common pursuit, to benefit by the labour and skill, by the depth of thought, or wide experience of their fellow-workers in the same field. They bring the kindly feelings of friendship to the aid of scientific investigations; they allow no man to feel that he can repose, as if he had done enough for society, for he finds in the brief interval since we last met, what new questions have agitated the world, and how he must bestir himself to keep pace with the intellectual progress of the age; they point the way to unexplored tracts of knowledge; they utilise the smallest contributions of thought whilst filling the mind with suggestions of the extent and variety of the problems which still remain to be solved in the social condition of man. The domain of statistics is so vast, that we should welcome any new labourers who will cultivate the new fields of research constantly opening up. If not strictly a science, it is at least a method of investigation which requires to be conducted in a scientific manner, and in an earnest spirit of search for truth. Even undeniable facts may be so collected as to serve the cause of prejudice, to perpetuate error, or to conceal the laws which they should reveal. In social science and political economy, statistics may be considered the collection of experiments, by the results of which we observe the hidden workings of the laws which regulate the social condition of man and his progress in civilisation. The growth and decay of population, the freedom of capital, and the rights of labour, the duty of voluntary or enforced education, the extent of Government interference in labour or manufactures, the competition of prices, the true principles of commerce, the most effectual means of suppression or prevention of crime, the theory of taxation and national loans, and multitudes of similar questions are all governed by subtle laws affecting the free will of man checked and kept in place by similar action in others, of which we catch a glimpse sometimes by their irregular action in enforced or abnormal conditions, and sometimes by our having discovered and acted in harmony with the natural law which governs them. But as society is perpetually changing what we have discovered and thought to be truth, seems frequently inadequate to account for the new phenomena presented. It is only by extending our observations from the narrow sphere of a single country or a single class to all countries and all classes, by an uniform collection of statistics as is now being done by all the Governments of Europe, by noting differences as well as analogies, and confessing and correcting errors, and comparing the operations of the same causes under various conditions of interference, that we shall throw light on the many unsolved problems of social and political economy which modern civilisation presents.

STATE *of* HEALTH, *and of the* EMPLOYMENT *of* INDIANS *in the* NEW ENGLAND COMPANY'S SETTLEMENT *of* KAUYAGEH, CANADA. *By* JAMES HEYWOOD, M.A., F.R.S.

[Read before Section F, British Association, at Norwich, August, 1868.]

THE New England Company is an ancient London society, originated in the time of Oliver Cromwell for the diffusion of Christianity and civilisation among Indians.

Kauyageh, one of their missionary stations, is a forest district in the Canadian Indian reserve on the Grand River, near Newport, province of Ontario, Canada. The Rev. Robert James Roberts, a clergyman of the Church of England, presides over the settlement, and on Sunday his church is generally well filled with about 300 persons, mostly neighbouring Indians.

All round the church there is a large extent of bush, in which many Indian families live. They belong to the tribes known as the Six Nations, and comprise Mohawks and other races. Their houses are generally about half a mile distant from each other, and round most of the houses there is a small portion of land cleared, in a farm of 50 or 100 acres each.

The roads are bad, and there are numerous swamps, which more or less poison the air and occasion ague. A stream or "creek," as it is called in Canada, passes through the property, which in spring and autumn is full of water, but in summer is merely a watercourse, containing stagnant pools and half decayed logs of wood, thus furnishing a prolific source of disease.

Ague is the most common disease. The Indian houses are small and badly ventilated, and the Indian people have not sufficient clothing in cold weather; their food is also at times insufficient and not wholesome.

Between the 1st January and the 30th June, 1868, there were seventeen deaths among the Church of England Indians at Kauyageh:—

Number.	Age.	Cause of Death.
Males—		
1	18	*Inflammation*
2	72	*Softening of the brain*
3	27	*Consumption*
4	17	*Diphtheria*
5	3	*Not known*
6	26	*Consumption*
7	11	*Inflammation*
8	25	*Consumption*

Number.	Age.	Cause of Death.
Females—		
1	7	*Cold*
2	56	*Consumption*
3	83	*Gradual decay*
4	4 months	*Ulcers*
5	1	*Not known*
6	33	*Consumption*
7	1	*Scrofula*
8	41	*Abscess*
9	52	*Consumption*

The use of ardent spirits among the Indians of the Six Nations is now much less than what it used to be. There are several temperance societies among the Indians, and one of the two medical officers having charge of the Indian reserve in that part of Canada, informs the missionary "that the consumption of spirits by white "people is much greater than by the Indians of Kauyageh."

A wooden school-house is in course of erection, to be ventilated by doors and windows.

Some of the Indians employ themselves in making axe handles, stable brooms, sledges, &c., and the women make baskets, straw hats, and bead work. The heads of the families are generally settled as farmers, and other Indians have been moving into the neighbourhood, trying to secure land. Indians are very skilful in the use of carpenters' tools; and they appreciate books adapted to their agricultural pursuits and of popular interest.

As an example of the willingness of an Indian to undertake regular employment, the following extract from a letter of Daniel Whiting, an Indian at the Indian village in the Chemong Lake Settlement of the New England Company in Canada, may be cited.

Daniel Whiting writes to the Rev. E. R. Roberts, the missionary at Chemong Lake, 8th June, 1868:—"I am very willing to work; "any day I like to work, if I only have something to go on with. "I am going to clear about eight or ten acres, if I can. I was "going to start to log it, this week, if I could get provision, and I "should be very much obliged if you could get for me some provision. I should like to get through the logging before the "harvest comes.

"Try and get us work, and oblige your faithful and true friend,

"Daniel Whiting."

The CATTLE PLAGUE *in* NORFOLK.

By WILLIAM SMITH, ESQ., M.R.C.V.S.

[Read before Section F, British Association, at Norwich, August, 1868.]

CATTLE Plague, Steppe Murrain, or Rinderpest, is a highly contagious and infectious fever of the eruptive or exanthematous kind affecting the Ox tribe, to which it is indigenous in the Steppes of Western Russia, and does not break out in other parts of Europe, unless introduced from its home on these plains by the specific virus from infected animals; no amount of filth, overcrowding, or other depressing influences has hitherto produced it in any other part of the world.

It is a bovine disorder, but sheep, goats, deer, and others of the order Ruminantia, will take it from the ox by inoculation or association. It does not maintain that virulent and destructive character in the systems of these animals that it does in those of oxen; it kills from 70 to 80 per cent. of the ox tribe when it gets into the herds of Europe, but is not so fatal on its native plains. It has an incubative period of from four to nine days, and in some instances even more. Any of the fluids of an infected beast will reproduce it in another by inoculation. It seldom or never attacks the same animal twice.

Symptoms and Duration.

These observed in Norfolk were various, *some of the most prominent were occasionally absent,* but amongst the earliest were elevation of temperature which, as indicated by the thermometer, rose from 102° F.—the mark in health—when introduced into the rectum or vagina, to 104° and 106°. In a few days the mucus membrane of the mouth was generally reddened and the pulse increased; sometimes an eruption was to be seen on the nose, udder, belly, and thighs; dulness, loss of appetite, constipation, &c.; at a more advanced stage diarrhœa set in with bloody discharges. The beast frequently, but not invariably, hung its head and lopped its ears, had a slimy and copious discharge from eyes and nostrils, which adhered to the face; stinking breath, increased respiration, accompanied with moaning, then followed great prostration, lowering of temperature, twitchings of muscles, a deposit of cheesy-like matter on gums and in under lip, with marginal excoriated lines round the necks of the teeth, emphysema of body, &c., &c. Death occurred from five to seven days after the beast was observed decidedly ill, and which was attended by an increase of some or more of these symptoms.

Postmortem Appearances.

The rumen was generally found full of food, as were the second and third stomachs (these often showing little signs of disease, the fourth stomach always did), the mucus membrane being spotted with red, and showed marks of extravasated blood, as also did the mucus coat of the intestines. The heart, urinary organs, lining membranes of trachea, bronchial tubes, and most of the other organs of the body were marked with petechial spots.

Treatment.

This, by means of drugs, in Norfolk, was of the most persistent, varied, and unsuccessful character. The county is remarkable, however, for having, in conjunction with the London Homœpathic Society, instituted the first and last costly and extended series of experiments in homœopathy that were ever made in this disease; the result was *a complete and total failure.* A prize of the value of 100*l.* was offered by the Lord Lieutenant of Norfolk to the person who should be the most successful in treating the disease, without having a single applicant, so little amenable to medicine was the disease in this county.

Vaccination also signally failed. Several cows in this city were vaccinated, the vesicles formed went through their usual course, and were considered perfect, but so little was its protective power, that every one of them, having previously been exposed to the contagion of rinderpest, became ill and were killed, having the disease in a severe form.

History—the Cattle Plague, &c.

The cattle plague has been known for more than a thousand years to have periodically devastated the continent of Europe. About 810 it is supposed to have visited England; we have no authentic record of its having broken out in this island again until 1714, when, strange to say, it appeared in Islington about the middle of July, it committed great ravages for about three months, and disappeared towards Christmas in the same year. It re-appeared in April, 1745, being, it is supposed, imported into England by some calves from Holland; it lasted twelve years, and killed many thousand head of cattle; it soon, as in the outbreak of 1865, found its way into Norfolk, establishing centres of contagion in the same districts that have so recently suffered from it. In March, 1770, it was imported into Portsoy, in the Moray Firth, but was stamped out with a comparatively trifling loss, the spread of the disease being prevented by the judicious and timely slaughter of the affected beasts and those which had been in contact with them, and in Aberdeen in 1865 it was twice stamped out by the adoption of similar means.

The outbreak in England of 1865 occurred in the middle of June, and was first observed at Islington, as in a former instance, and like it soon found its way into Norfolk. It was brought by a lot of foreign oxen from the metropolitan into Norwich market on Saturday, 1st July, by cattle dealers, some of which were sent to North Walsham and Trunch, and the remainder to Whitwell, parishes lying 15 and 12 miles north and north-west of Norwich. From these two centres of contagion the pest rapidly spread, and within about a month the loss in the North Walsham district alone was estimated at the time to amount to 1,059*l.* On the 4th August —I must be excused for saying that having been consulted in connection with Mr. Shipley, V.S., of North Walsham, at Mr. Bidewell's, of Trunch, with regard to the disease of his oxen, that I had such strong suspicion of its nature, that I felt it my duty to address a letter to the Privy Council Office on the same evening, drawing its attention to the facts that no efforts were being made to arrest it, free intercourse between diseased and healthy beasts was permitted, and the carcases of those which died of the malady were, in many instances, so carelessly disposed of, being scarcely covered with earth, and sometimes only with a little litter, that unless some restrictive measures were speedily adopted, a large proportion of the beasts in this neighbourhood would be destroyed. To this letter a reply was received by return, dated 5th August, stating that the Lord President of the Council had directed it to be placed in the hands of Professor Simonds, and that an inspector should be sent to Norwich with a view to ascertain whether any and what steps could be taken to arrest the progress and prevent the spread of this very serious disease.

In the Reepham district the pest was scarcely less active, although it was stated that 50 per cent. of the early cases recovered. This was an exception to the rule, for between 70 and 80 per cent., and even more, succumbed to its virulence in the other infected places, not only in Norfolk, but, I believe, throughout the kingdom.

Through the instrumentality of Mr. C. S. Read, M.P. for Norfolk, a meeting of the agriculturists of the county was held on the 5th of August, a committee formed, and a deputation appointed to the Board of Trade to get the Orders of Council of the 24th of June extended to the infected rural districts, who urged upon the Government that a great means of checking the disease would be to prevent the diseased cattle from being sent from the metropolitan market into the country districts. The deputation was informed that the authorities could not interfere in such a way with the trade of the country. Thus the result of the deputation was practically valueless, and it was suggested by Mr. Read, and adopted by the meeting, that the agriculturists of the county should help themselves, and that a mutual assurance company should be at once formed, that they should combine and agree not to purchase any stock for at least six weeks, and that a subscription should be raised for the purpose of relieving those who had already, or might become sufferers. This agreement to abstain from purchasing fresh stock, did *important service* to the county, and was a great means of checking for a time the progress of the disease; many, however, who did not enter into the agreement, bought stock and suffered severely for their folly, but, unfortunately, not singly, for they were the means of carrying the disease to their neighbours, and of establishing fresh centres of contagion, and many outbreaks were traced to these proceedings.

On the 12th August, one of the largest and most influential meetings of noblemen and agriculturists of Norfolk that ever was held in the county assembled, when a subscription was entered into, headed by Lord Leicester with the munificent donation of 500*l.*, and the Norfolk Cattle Plague Association formed, which did such great and memorable service to the county. And not alone by its compensation fund was this effected, but its complete organisation, its moral influence, its activity in watching the progress of the pest, and sending out its agents and inspectors to control, as far as possible, its destructive power, its directions for isolating affected animals, disinfecting premises, and advice for the adoption of such preventive measures as it had at its command, were the additional means it employed to ensure the great success that followed the operations of the association, which is best told by its results, and which will shortly be detailed.

Notwithstanding the warnings the then Government continually received of the pestilential nature and probable effect of the contagious and infectious disease which was prevailing in the metropolis, it was not until the 24th of July—nearly six weeks having passed away since the outbreak in Islington—before they took any action in the matter, when the Privy Council Order, bearing that date, was issued, declaring the disease to be of an *uncertain* nature. Although by this time the *certainty* of its nature had been too well established, as it had extended into Norfolk and several other rural districts, yet the order simply required the owners of cattle *in the metropolis* to give notice to the Clerk of the Privy Council of the existence of any analogous disease in their sheds, inflicting a penalty of 20*l.* for its non-observance.

The effect of this order was decidedly *to spread the disease throughout the country*, as the cowkeepers sent their stock into the metropolitan market for sale rather than risk the destruction of it after giving such information—*no offer of compensation to the owners of cattle destroyed under the order being given, or hope of such held out*—and thus from the metropolitan market it was sent into Norfolk and the country districts. Not until the 26th of August, another period of seven weeks having elapsed before the Order in Council was extended into the country, or any steps whatever taken to arrest the progress of the disease in Norfolk by the Government, although it was urged, as it has already been stated, to do so by a deputation sent from this county to the Board of Trade as early as the 7th of August, and it was not until the 29th of September that the power was given to the local authorities to close the fairs and markets of the county; but the value of this part of the order was lessened by taking from the veterinary inspectors the power of slaughtering diseased beasts, which could only now be done in cases where the owners refused to obey their directions as to isolation. Oxen from infected herds were still moved about, under licence from inspectors, from the country to the metropolitan districts, and not unfrequently back again, carrying their pestilential exhalations everywhere in their trail.

It will be seen from the figures in the Government returns, that from the outbreak in Norfolk on the 1st July to the 21st October, when the first Government report was issued, that there had been 705 attacks, of which 296 were killed and 290 died; from the 21st of October to the 25th of November, a period of only five weeks, so great had been the blundering of the Government, that although eight Orders of Council had been already issued, they were utterly effete and powerless, and unable to arrest in any degree the progress of the pest.

The number attacked from the outbreak on the 1st of July to the 25th of November, now amounted to 1,709. The increase of the malady in this short period in Norfolk amounted to 1,004 beasts. The Orders in Council generally gave great dissatisfaction throughout the county, and the eighth, issued on the 23rd of November, actually permitted animals to be sent by railway both through and out of the infected districts; in fact, the Government was so vacillating and timid in its action, and the Orders in Council so perplexing, that neither magistrates nor inspectors knew from day to day what the law was on the matter, and frequent applications had to be made to Secretary Sir George Grey for explanations of them, and which were often as unsatisfactory as the orders they were intended to elucidate.

On the 23rd of November compulsory slaughter ceased, and was not resumed until the 24th of March in the following year, in this period of four months, an increase of attacks to the number of 4,225 occurred. From the month of March to July following, when slaughter was resumed, markets and fairs prohibited, infected places declared and dealt with, and licences established (a period of another four months) the number of attacks was reduced to only 726, against 4,225 in the preceding four months, showing a decrease in this period of 3,499 animals; or at the rate of more than 850 per month.

This, I submit, convincingly demonstrates the value of the means now employed to stamp out the plague. These were continued, and the result was, in six weeks more the diseased animals amounted in all to only fourteen, ten of which were killed and four died, the last case of disease being reported on the 15th September, 1866. Thus the cattle plague in Norfolk was stamped out, having lasted fourteen months and two weeks; and although the pest did not entirely disappear from the kingdom until a year after, viz., in September, 1867, it was never re-introduced into Norfolk.

By the end of December, 1865, the cattle plague had appeared in nineteen divisions in Norfolk, and in more than one hundred and twenty parishes, and at its extermination, only four or five divisions had escaped the infection: amongst these were Gallow, Greenhoe North, Mitford, and Wayland.

	£	*s.*	*d.*
The total number of oxen lost by the disease, was 6,380, of the *ascertained* value of	62,417	13	4
To which must be added a sum for those disposed of by forced sales and slaughter, in consequence of contiguity of disease, of the *estimated* value of	25,160	7	5
To which may be added a further sum for waste of root crops and loss of manure, of the *estimated* value of at least	7,000	-	-
To which must be added the expenses of the county local authority, shown to be 4,181*l.* 7*s.* 6*d.*, and those of the Norfolk Cattle Plague Association 1,240*l.* 11*s.* 9*d.*	5,421	19	3
Which will bring up the total loss to the county of a sum amounting to	100,000	-	-

From the figures extracted from the published accounts, it will be seen that the compensation paid by the local authority of the county was 10,112*l.* 2*s.* 2*d.*, whilst its expenses for performing the work were 4,181*l.* 7*s.* 6*d.*

The Norfolk Cattle Plague Association paid more than double this sum in compensation, viz., 20,368*l.* 6*s.* 10*d.* At a cost for expenses, including a large sum for experiments, of less than one-third of the above sum, viz., 1,240*l.* 11*s.* 9*d.*

The balance in the hands of the local authority of the county is 2,275*l.* 4*s.* 11*d.* That in those of the Norfolk Cattle Plague Association is 4,441*l.* 4*s.* 9*d.*

I have no intention in making this statement of drawing an unfavourable comparison between the local authority of the county and the Norfolk Cattle Plague Association. The circumstances under which they acted were different, and I am ready to admit from my own experience that the greatest care and economy were observed by both, as all those who had any transactions with them can abundantly testify.

It will be seen by reference to the statement that in the Aylsham division the sum paid in compensation by the Norfolk Cattle Plague Association was by far the largest amount paid by them in any division during the early period of the disease, namely, 5,515*l.* 12*s.* 2*d.* This was caused by the want of power to deal with it at its outbreak; had the Government sooner taken action, the probability is that it would have been stamped out of the county at a comparatively little loss. *The disease was always two months, or more, in advance of the Orders in Council.* The spread of the plague was owing to the unrestricted movements of cattle from and to the metropolitan and other markets of the kingdom. Beasts from diseased herds were continually bringing their streams of contagion into Norfolk, and nearly, perhaps all, the early outbreaks could be traced to the above causes. How much then should the Government be censured for its supineness and neglect, or for, it might be, its inability to deal vigorously and promptly with it?

At a much later period of the disease in Norfolk, viz., that which may perhaps be called the second outbreak, and which occurred in the division of Clackclose, we are startled to find that an experience of some twelve months was set at nought, and a system established, of which a laxity in carrying out the law and futile attempts to cure by the animals being chloroformed, were the more prominent features (and it looks very much as if the authorities were stupified too by their proximity to this anæsthetic), and the result was a cost to the county of the largest sum yet expended in any division, amounting to no less than 5,848*l.* 1*s.* 7*d.*

From the foregoing facts and figures we gather that the rinderpest was introduced into Norfolk on the 1st of July, 1865; that it disappeared from the county in the middle of September, after raging for nearly fifteen months; that it appeared in nineteen divisions of the county, in more than one hundred and twenty parishes; and that there were 880 outbreaks of the disease occurring nearly all over the county, but by far the greater number in the north-eastern parts of it; that the disease attacked 6,674 animals, 6,380 of which were lost, 294 *only recovered*, of the ascertained value of 62,417*l.* 13*s.* 4*d.*, to which must be added the expenses of the county local authority and Cattle Plague Association, and the further losses from forced sales, slaughter of healthy cattle, cost for treatment, disinfection, waste of root crop, and diminution of manure, estimated to amount in the aggregate to little, if any, short of 100,000*l.* sterling.

This is undoubtedly a large sum, but shows very favourably for this county, when compared with the attacks and results in others.

Norfolk, with an area of 1,354,301 acres, with 92,673 head of cattle, had only 6,674 attacked, being a percentage on the estimated stock in that county of 6·876.

Cambridgeshire, with an area of 525,182, with 31,731 head of cattle, had 7,875 attacked, being a percentage in the estimated stock of 21·226.

Whilst *Cheshire*, with an area of 707,078 acres, with only 93,044 head of cattle, or very few more than in Norfolk, had 67,703 attacked, being a percentage on the estimated stock in that county of 52·286.

In the county of Cheshire the Orders of Council and the law were generally disregarded, and for some weeks after the passing of the act for the appointment of local authorities, &c. (I know, being on cattle plague business in the county), that it was not put in force, 32,730 beasts were allowed to die; and to these circumstances, aided by the nearness of the occupations, and the prejudice in favour of treatment, must be attributed the immense and ruinous nature of the losses in that county.

Surely no other examples can be needed of the insane practices of treating and endeavouring to preserve infected animals than these facts. And beyond all doubt the course of action that in future must be enforced, should this pest again break out in the kingdom, is to destroy at once the infected oxen and all that have been in contact with them or within the sphere of its baneful influence.

We have already seen that it was twice in 1865 stamped out in Aberdeen, and we know that in the same year in Belgium it was exterminated with a total loss of no more than 459 animals, at an expense to the Government for veterinary and other aid of less than 4,000*l.* sterling.

In France, in the same year, two outbreaks occurred, which were quickly stamped out by the Government and its veterinary officers, with the loss in the first outbreak of 43, and in the second of 34 animals. It has been said here that the French Government was despotic and arbitrary, and that what could be effected there could not be done here: but it is to be earnestly hoped, that if another outbreak should occur in England, as is not unlikely, and probably at no distant period, a Government will be in existence in this country, unlike the late one, strong and determined enough to arrest its onward career, which the last one so signally and so shamefully neglected to do, to the great loss of the agricultural and general public.

It is further worthy of remark, that during that period of the cattle plague in Norfolk, when the movements of cattle were restricted by licences, and close inspection maintained, that the lung disease was held in abeyance, and the mouth and foot disease, except at the outbreak of the pest, quite disappeared; but very soon after these checks to the propagation of the disease were removed, our old enemies reappeared. I regret to state that these disorders, especially pleuro-pneumonia, are now prevailing and spreading in this and the adjoining counties.

In proof of this, I may refer to the subjoined tabular statement, which I have collected from the books of the Norfolk Farmers' Cattle Insurance and Investment Company, which have been kindly placed at my disposal by the manager, C. R. Gillman, Esq., of this city. This company has been in existence twenty years, and has insured stock of the value of more than 2,000,000*l.* sterling, and has awarded during this period upwards of 80,000*l.* in compensation for losses among live stock; its experience, therefore, must be valuable and reliable, which shows that previous to the outbreak of cattle plague, the losses from pleuro-pneumonia were periodically very severe. As soon as the *restrictive measures* were placed upon the movements of cattle, and *fairs* and *markets* prohibited, this hitherto incurable and most destructive disease almost disappeared; and now that the free movement of beasts is again permitted, pleuro-pneumonia is once more asserting its malignant supremacy:—

In 1858 the losses from pleuro-pneumonia upon the mortality from all causes of the whole number of neat stock insured in this year were		63½	per cent.
In 1859 they were		45	„
„ '60	„	47½	„
„ '61	„	41¼	„
„ '62	„	46½	„
„ '63	„	35	„
„ '64	„	35	„
„ '65	„	26	„
„ '66*	„	1	„
„ '67	„	8	„
„ '68 up to 17th August, when these figures were extracted		30	„

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* The year when restrictions and licences were in force.

Note.—Pleuro-pneumonia having an incubative period of from fourteen to

Legislation has been urged on a little way in the right direction, as the act of last session is calculated to control pleuro-pneumonia in a slight degree, by inflicting a penalty on persons exposing animals so affected in the markets of the kingdom. Next session I hope it will take a step further, and prevent such animals from being moved from place to place on the public thoroughfares until all fear of infection has passed away; this would tend, in the opinion of those best acquainted with the subject, to give it a severe check, and consequently would be the means of cheapening animal food in this country more effectually than any other course that could be adopted (foreign importation not excepted). The growing desire to encourage and foster free trade by the importation of foreign animals has, perhaps, its advantages, but certainly has its evils: for we are surely indebted to the foreigner for the introduction of diseases unknown for a century or more in England, of which small pox in sheep, introduced first in 1847 and several times since, and cattle plague in 1865, furnishes us with too true and too costly exemplifications, to say nothing of pleuro-pneumonia and mouth and foot disease, which some consider to be of doubtful origin, but which the majority of those acquainted with the subject consider imported diseases, and with a greater show of truth, as they made their first *appearance* in England contemporaneously, or nearly so, with cattle importation into this country, and they have for the last quarter of a century done, I believe, more to make animal food dear, than the importations have done to cheapen it. Free trade in animals to a great extent has hitherto been, I agree with the hon. member for East Norfolk, "free trade in disease."

Before concluding this brief and necessarily curtailed sketch of the outbreak and statistics of the progress, decline, and extermination of cattle plague in Norfolk, it will be expected, perhaps, that some slight mention should be made of an analogous disease affecting sheep, especially as some few losses have occurred in Norfolk, alleged to be of the nature of cattle plague, and which at the time were the subject of much controversy and some angry feeling. I shall merely remark that about the 17th of August, 1865, this disease was said to have broken out at Blakeney, and on or about the 1st September at Crown Point. According to the Government reports, which take no further notice of the disease

forty days, is consequently slower in its rise and progress than cattle plague, and therefore does not directly excite so much fear when it breaks out in a herd of cattle, and is not nearly so infectious; but practically its effect upon the stock of this country has had a powerful influence in making animal food dearer than many are inclined to believe, but who would soon understand if they would consult such authorities as are in existence, explanatory of its ravages since its introduction in 1842.

after the 10th November, 1866, seeing I suppose by this time there was no great necessity to do so, it appears that out of 596,683 sheep in the county of Norfolk, only fifteen flocks had been affected with a disease at all traceable to bovine origin, and of which only 2,393 died or were killed in consequence of its believed identity. Between 1,200 and 1,800 of these *died* from one flock at *Crown Point*, leaving very few deaths indeed to be accounted for in the *remaining fourteen.* It is worthy of note that a series of carefully conducted experiments were instituted at Crown Point by the medical committee appointed by the Norfolk Cattle Plague Association, to the furtherance of which the well-known liberality of the proprietor so largely conduced, were attended with a very doubtful result, at least so it struck me, inasmuch as thirty healthy sheep, comprising twenty lambs and ten shearlings, were closely associated in a fold there, contiguous to the park where so many had died and were dying from 10th October to 21st November, 1865, and during this period only four of the imported healthy lambs died in all, *one* of which was declared not to be affected with the disease analogous to cattle plague, and the ten shearlings *lived*, and were killed for the meat market at the time the fold was broken up on the 21st of November, in a perfect state of health, although five of them had been allowed to roam at pleasure in the park in contact with the diseased lambs, and on the pastures where this great mortality had occurred. The opinion of many eminent flockmasters, as well as that of Mr. Woods, of Merton, in this county, so celebrated for his knowledge of sheep and their breeding, was that the dryness of the season and food, the overstocking of the pastures, and general mismanagement, were more the causes of death than the special disease above referred to.

It will be found by the Government returns on the subject, that the sheep enumerated in Great Britain on the 5th May, 1866, were 22,048,281, and that the total number of farms, sheds, or other places in which disease had appeared among sheep was 104; that the total number of sheep slaughtered healthy to prevent the spread of the disease was 419; that the number attacked from the commencement of the disease was 6,826; that the number killed was 1,092; that the number which died was 4,640; that the number which recovered was 1,031: and that unaccounted for was 63.

These figures and facts relating to the disease of sheep in Norfolk and in Great Britain, I imagine will speak for themselves, and require no comment from me.

In conclusion, I regret to announce that I learn from the London newspaper reports of the last week (which have yet been uncontradicted), that 1,290 foreign sheep have been brought by the ships, "Waterloo," from Rotterdam, and the "City of Norwich," from Tonning, in such a diseased state, that they were all destroyed, as they were found suffering from *variola ovina* (small pox), and that so recently as on Monday last, the 17th August, 2,400 more were condemned at Brunswick Wharf, Blackwall, and ordered to be slaughtered, making a total of 6,090 sheep destroyed within a few days, and showing an excess of deaths of 162 sheep, in little more than a-week, over the aggregate number lost during the two years and three months that cattle plague existed in England. Moreover, from the same source I obtain the information that between 3,000 and 4,000 sheep arrive weekly in London from Harwich under very suspicious circumstances. No doubt the foreign dealers do with their stock, when they get an opportunity, precisely what the London cowkeepers did with their cows in the time of cattle plague—send the suspected, if not diseased, animals to market—and the metropolitan one seems now to be equally as accessible to the Foreign as to the English dealer, for this we have to thank the opponents of the Foreign Market Bill of the last session, who will see, perhaps, when it is too late, the folly of the course they took. We are, however, not without hope that a judicious measure will be carried in the first session of the new Parliament with regard to a market for imported animals, which will provide a remedy for the evil.

Some STATISTICS *relating to the* CIVIL SERVICE.

By HORACE MANN, ESQ.*

[**Read before Section F, British Association, at Norwich, August, 1868.**]

CONTENTS:

	PAGE
I.—Numerical Force of the Civil Service	407
II.—Classification	408
III.—Number of Departments	408
IV.—Cost	409
V.—Nomenclature	409
VI.—Remuneration	409
VII.—Competitive Examinations	411
VIII.—Schemes of Examination	412
IX.—Limits of Age	413
Note	415
APPENDIX.	
A.—Scales of Salary	416
B.—Limits of Age	417

I SHALL probably not be far wrong in assuming that in very few minds does the term "Civil Service" call up any definite conception of an organised body, such as is at once presented when the "army" or the "navy" is mentioned. In the latter case, every one pictures to himself an aggregate of so many regiments or so many ships containing so many men, divided into a few well-known grades. In the former everything is vague. Where the civil service begins or ends—how many separate departments there are—what is the aggregate force and how classified—what the annual cost and how distributed—these and other questions, if ever asked, are probably never answered, except to some extent by those who make or move the annual "Estimates."

The object of this paper is to supply a few (though only a few) facts and figures, so that outsiders may obtain a notion of the civil service which, though necessarily still vague enough, shall at least be more palpable in its vagueness than that which is generally entertained.

I.—*Numerical Force of the Civil Service.*

The numerical force of the civil service, exclusive of that portion which is strictly local and paid for wholly out of local funds, somewhat exceeds 100,000 persons. By a careful analysis, made from the "Estimates" for 1859-60 and the "Finance Accounts" of 1858-59, and printed in the Report of the Select Committee on Civil Service Appointments (1860), it appears that the total number of persons at that time on the lists of the various departments (excepting the legal departments), was 104,884. Supposing that no material change has occurred since 1860, and adding 2,284, the number which a recent return ascribes to the legal departments, the total at present would be nearly 107,000. At all events this number may be taken as sufficiently accurate for the purpose of conveying a general impression on the subject.

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* Although the precaution is probably unnecessary, it may, nevertheless, be as well, considering the official relations of the writer, to state that this paper is written by him entirely in his private capacity, and that he alone is responsible for its contents.

II.—*Classification.*

Any classification of this total must, of course, be to a certain extent arbitrary, but the following may be better than none:—

HEADS OF DEPARTMENTS		197
Political	38	
Non-political	159	
SUB-HEADS OF DEPARTMENTS AND HEADS OF BRANCHES		1,682
CLERKS		14,596
INFERIOR OFFICERS		39,023
In-door (messengers, &c.)	2,457	
Out-door	36,566	
TEMPORARY OFFICERS		396
Clerks	390	
Inferior	6	
PROFESSIONAL OFFICERS		4,184
Superior	2,263	
Inferior	1,921	
ARTISANS AND LABOURERS		30,438
WOMEN		780
PERSONS PERMANENTLY, BUT NOT WHOLLY, EMPLOYED		15,243
		106,539

This account may be roughly said to include all the services which are paid for out of the general, as distinct from the local, taxation of the United Kingdom.

III.—*Number of Departments.*

The number of separate offices or departments is not easily stated, because many of those which are subordinate to large superintending departments, such as the Home Office or the Treasury, are really separate in respect of locality, management, and organisation; being merely attached to the common centre for purposes of patronage, or for ultimate appeal on fundamental questions. Including these, the total would be about 112, ranging from the Post Office, with its 25,000 officers, to several departments whose whole staff consists of only two or three.

IV.—*Cost.*

The total cost of the civil service, including not only the salaries and wages of the above number of persons, but also rent, postage, printing, and every kind of incidental charge, may be stated, in round numbers, on the authority of Mr. Childers, at 10,800,000*l.*; which is the sum voted by the House of Commons in the current year, with the addition of certain amounts charged upon the consolidated fund, and of other amounts obtained (as in the case of the courts of law) from fees paid by the public.

This general outline of the civil service may serve to introduce the more immediate object of this paper, which is to show, by a few illustrations, the extremely disjointed character of this service, and the urgent want of some authority by which a greater degree of order and unity might be introduced. Of course I do not forget that anomalies and irregularities have special attractions for many persons, and are supposed to be peculiarly appropriate to the genius of the English nation. The only question, therefore, will be whether these necessary or desirable characteristics are not exhibited, in the present case, in somewhat excessive force.

V.—*Nomenclature.*

One illustration might be found at the very outset in the nomenclature of the service; sometimes a variety of terms being applied to those who discharge identical functions—sometimes the same appellations being used to describe the holders of very different situations. Compared with the sister services, in which the rank of each officer is distinctly indicated by the designation, nothing can appear more confusing than a nomenclature where a comprehensive title covers wide distinctions, while a multitude of names is used for practically similar offices. This confusion is of more significance in various ways than might at first sight appear; but other and more striking illustrations of anarchy claim the limited space to be occupied by this paper.

VI.—*Remuneration.*

Let us, for instance, glance next at the *remuneration* of the service. Of course, where the nature of the duties varies, it is to be expected that the amount of recompense will vary; and if the many different rates of payment to be found in the "Estimates" really represent corresponding differences in the work performed, the result is creditable to the discrimination of the authorities by whom the nicely graduated rates were fixed. Whether this can be assumed, however, may perhaps be rendered somewhat clearer by reference to the facts relating to one portion of the service, viz., the regular "established clerks." These are usually grouped in classes, each class having a distinct scale of salary. *A priori*, therefore, one would expect to find not more than half-a-dozen classes, and the same number of scales; the difference between one department and another in amount and difficulty of work being shown by the larger or smaller proportion of clerks in the higher or lower classes. An analysis, however, of Division II of the "Estimates" (see the annexed Table A), shows that the 892 clerks belonging to the departments included in this division, have no fewer than ninety distinct scales of salary, the lowest being 70*l.*, rising by 5*l.* annually to 120*l.*, and the highest being 700*l.*, rising by 25*l.* annually to 1,000*l.* In this enumeration I have excluded all officers occupying special posts, though in many cases not receiving higher salary than the classified clerks; and also, on the one hand, such superintending officers, as "chief clerks," "principal clerks," &c., and, on the other hand, all supplementary and extra clerks. Had these been included, the number of scales would have been still more numerous. In so many scales, the differences between one and another are, as might be expected, in some cases exceedingly slight. For example: there are four scales, all beginning with 80*l.*, and all having an annual increment of 10*l.*; but the maxima are, respectively, 120*l.*, 130*l.*, 150*l.*, and 180*l.* Again: there are three scales having each a minimum of 100*l.* and a maximum of 300*l.*, the difference being that the annual increment is in one case 10*l.*, in another 15*l.*, and in the third 10*l.* for the first eight years, and 15*l.* afterwards. Other instances of the slightest possible differences will be seen in the detailed table annexed. It is possible, of course, that all these ninety varieties, and the others which these ninety indicate, result from the skilful nicety with which the respective merits of the clerks have been valued by the authorities who fix the rates; but another supposition is at least allowable, and perhaps plausible, viz., that there has been no real, effective, competent authority at all, and that scales have been fixed very much at hazard or caprice, without reference to any guiding principle whatever.

As already mentioned, the preceding facts refer to the established clerks alone. It may, however, be interesting to see to what extent the civil service accepts a lower kind of agency, such as forms a large proportion of the labour in all private establishments, paid at a lower rate, and occupied entirely upon mechanical or semi-mechanical work. I have myself little doubt that at least half the work of most of the public departments is of this description, and that it might be most efficiently as well as most economically performed by a subordinate class, recruited from a lower stratum of society than that to which the ordinary clerks belong. Taking, then, as before, Class II of the "Estimates" as sufficiently representing the whole service, it appears that the number of supplementary, copying, extra, and temporary clerks is about 110, against 892 belonging to the higher grades of clerkships; the proportion being one to eight. For these 110 persons there are sixteen distinct scales of remuneration, the lowest entrance-salary being 62*l.*, which applies to eight persons only; all the rest entering at various amounts, from 78*l.* upwards. Why, for mere copying purposes, there should not be a class of younger assistants, such as are found in solicitors' offices, to whom 30*l.* or 40*l.* a-year would be a great sum, seems difficult of explanation, unless we find one in the fact (which may also explain the reason of the large excess of "established clerks") that the Government service is a patronage service, and that salaries therefore, when fixed in times past, may have been adapted more to the social position of those for whom the patrons wished to provide, than to the value of the work to be performed.

VII.—*Competitive Examinations.*

I will, however, pass from this tempting subject (with which I hope to deal more fully on a future occasion) and give two or three more illustrations, drawn this time from the system of examination conducted by the Civil Service Commissioners. That system, as is probably well-known to many here, is founded on an Order in Council, issued in 1855, which requires that all persons proposed to be appointed to the civil service shall be examined, and, if competent, certificated. The nature of the examination is prescribed by the heads of the respective departments, who also, except where the Treasury has the patronage, determine whether the examination shall be competitive or not. The result is—contrary to what might be inferred from the recent statements of such high authorities as the Chancellor of the Exchequer, Sir Charles Trevelyan, and Mr. Childers—that competition, instead of being so universally adopted as to include even the lower class of out-door appointments, has not in any case been applied to the class referred to, and only partially and fitfully to the higher class. Thus, to put the point statistically, it appears from the last report of the Civil Service Commissioners, that in the year 1866 there were 3,038 persons nominated to inferior situations, not one of whom was examined competitively, or in anything but the most elementary tests to which a man or child could be subjected. In the same year the number of clerkships and similar situations to which appointments were made was 962, of which number 281 were filled by means of limited competition, and 681 without any competition. In only three cases does anything like open competition appear to have been tried, viz., for a supplementary clerkship in the Civil Service Commission, for copying clerkships in the Probate Court, and for the situations of apprentice and engineer student in the dockyards and steam factories under the Admiralty. As to the other departments, competition seems to be adopted by some and not by others; where adopted, to be sometimes tried and sometimes not; and where tried, to be sometimes tried with one number of competitors, and sometimes with another number—the proportion varying from a maximum of six candidates per vacancy in a few instances, to a minimum of one and a-half candidates per vacancy (the average being under three per vacancy)—all nominated in the usual course of patronage. Thus, it will be seen that, as to the competitive principle, it is neither uniformly adopted for the service, nor uniformly applied where it is formally adopted.

VIII.—*Schemes of Examination.*

A similar diversity prevails with regard to the subjects of examination. These are fixed by the chief authorities of each department, and the consequence is, that nearly every office has a scheme differing from every other scheme in some particular, often of the most trivial character. Of course where duties differ, the examinations should generally differ, and therefore a considerable diversity of schemes is inevitable; as special and technical subjects must be introduced to meet the requirements of certain situations. It will be readily seen, however, on inspection of the list in the Civil Service Commissioners' Reports, that numerous variations exist in schemes for situations of essentially the same description. Thus, for temporary and copying clerks, constituting, with few exceptions, one homogeneous class, there are no fewer than thirty-one schemes; for ordinary established clerkships, as many as eighty-eight schemes; for messengers, &c., nine schemes: the entire number for the whole service being two hundred and twenty.

An idea of the kind and degree of difference which some departments think it worth while to propose, may be gained by reference to the subject of arithmetic, as it appears in the schemes for established clerkships, for which, it might be supposed, the same amount might in all cases be prescribed. By far the most general requirement, under this head, is "arithmetic, up to and "including vulgar and decimal fractions;" but the following variations from this standard have been adopted:—

1. *Arithmetic:* the first four rules, practice and the rule of three.
2. *Arithmetic:* first four rules.
3. *Arithmetic:* including rule of three, practice, and the arithmetical tables.

4. *Arithmetic:* including vulgar and decimal fractions, square root, and the use of logarithms.
5. *Arithmetic:* including vulgar fractions.
6. *Arithmetic:* including reduction, proportion, practice, and bills of parcels.
7. *Arithmetic:* first four rules and rule of three.
8. *Arithmetic:* including vulgar and decimal fractions, and the principles of exchange.
9. *Arithmetic:* including proportion and decimal fractions.
10. *Arithmetic:* including vulgar and decimal fractions, calculation of percentages and averages.
11. *Arithmetic:* first four rules, with reduction and proportion.
12. *Arithmetic:* including vulgar and decimal fractions, purchase of stock, and exchange.
13. *Arithmetic:* including reduction, proportion, and practice.

Variations in other cases are produced by the inclusion or omission of such subjects as English composition, geography, history, précis writing, book-keeping, ancient or modern languages, &c.—sometimes one of these being prescribed, sometimes another or others—often without any apparent reason for the preference. On the whole, it can hardly be doubted that so large a number as two hundred and twenty separate schemes is excessive, and that a considerable reduction might with advantage be effected by the amalgamation of nearly half of them.

IX.—*Limits of Age.*

My remaining illustration is drawn from the same source, viz., the examinations for the service; the unnecessary distinctions being found in the *limits of age*, which the Order in Council requires to be fixed for all situations under Government. Of course, in this respect, as with regard to subjects of examination, there are substantial differences between many situations, which make different limits of age quite necessary. But the table annexed (B), shows that the number of distinct limits reaches as high as ninety-three! Of this number thirty apply to established clerkships and similar appointments; twenty-four to temporary, extra, and copying clerks; and twenty to messengers, &c. The difference between one limit and another is often extremely slight, and probably quite unnecessary for official purposes. In the case, for example, of the ordinary clerkships, the following are some of the limits prescribed by the various departments:—

From 16 to 23 years of age.
" 16 " 25 "
" 16 " 28 "
" 16 " 30 "
" 18 " 22 "
" 18 " 23 "

From 18 to 24 years of age.
" 18 " 25 "
" 18 " 26 "
" 18 " 28 "
" 18 " 30 "

And so on. That these trivial distinctions correspond to any sufficient difference in the circumstances of the several departments, is obviously incredible. The inference which a critic might naturally draw from the figures is, that in many cases the limits have been selected very much at random, while in others they have been adapted to the age of the patron's nominee, rather than chosen as the best, on general grounds, for the service.

These illustrations might easily be extended, but probably the foregoing are sufficient for the purpose of this paper, viz., to make confusion conspicuous, and to indicate a picture of disorder—the natural result of a disintegrated service. Those who have heard Haydn's oratorio of the "Creation," will recollect that it opens with a musical "representation of chaos." How far he has succeeded in his attempt I am not critic enough to decide; but this paper will certainly fail of its design if it do not leave on the mind an impression, however faint, of the civil service as a chaotic mass of unorganised elements—an aggregate of separate departments governed, in many points, by no principles, or no common principles—with different kinds of work for the same kind of officer, and different kinds of officers for the same kind of work —with varying nomenclature, varying remuneration, varying standards of examination,* and varying practice as to the mode of appointment; all these variations being out of all proportion to the real varieties existing in the subject-matter dealt with. What would be the appropriate remedy for some at least of the evils of this state of things, is a question which must be reserved for another opportunity.

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* There seems to be a very general belief that the limits of age, and subjects of examination are fixed by the Civil Service Commissioners. This, however, is not the case. The Order in Council provides that the rules on these points are to be settled at the discretion of the chief authorities of each department.

NOTE *as to Political Patronage in the Civil Service.*

As much misapprehension seems to exist with respect to the extent to which political patronage has been abolished by the examination system now in force, it may be as well to explain that it has not been abolished at all. The right of nominating to situations in the civil service remains, with but few exceptions, in the same hands as before; subject only to a check, in the shape of an examination, against the appointment of incompetent persons, and to the further condition, in some cases, that each nominee must take his chance of being the best of two or three competitors. It will be seen, therefore, that the range of patronage has been increased instead of diminished. Formerly one person only was nominated for each situation, which he obtained almost as a matter of course; but now, for every vacancy in the principal departments there is (1) a preliminary test examination; and (2) a competitive examination of those who pass this test. As about half of the candidates fail to pass the test, and as of those who do pass, three are generally nominated to compete for each vacancy, it follows that for a given number of vacancies, there are, in these departments, about six times as many nominations as were made under the old system of direct appointment. As some candidates, however, receive more than one nomination, and as competition is not uniformly adopted, the number of *persons nominated* is not so great as the number of *nominations*, and may be estimated, as above, at about four times the ancient number. Consequently the situations in many departments (including all those under the control of the Treasury), furnish the means of conferring favours on six times as many persons, and represent favours actually conferred on four times as many persons as were favoured formerly. It is true that the value of the favours is not now so great, for the chance of a prize is of course not so valuable as the certainty; but the question is, not whether the obligation to the minister is as weighty as before, but whether it is *sufficient for its purpose.* If it is sufficient, the effect, so far as political influence is concerned, must be just as great whether 12,000 candidates receive 12,000 places, or whether 12,000 candidates receive a chance of obtaining 3,000 places. In each case, the relation of obligor and obligee is established between the same number of persons; and if this number represents an increase of 400 per cent., the influence of patronage, whether for good or evil, has been extended in the same proportion.

APPENDIX.

A.—Table showing the various Scales of Salary assigned to Established Clerkships (excluding Chief Clerks, Principal Clerks, Supplementary Clerks, &c.), in the various Departments comprised in Class II of the Estimates for 1868-69.

Scales of Salary.			Number of Persons Receiving Salary under each Scale.	Scales of Salary.			Number of Persons Receiving Salary under each Scale.
Minimum.	Annual Increase.	Maximum.		Minimum.	Annual Increase.	Maximum.	
£	£	£		£	£	£	
70	5	120	6	200	10	280	2
70	5	150	7	200	10	300	17
80	10	120	4	200	15	300	10
80	10	130	5	200	10	320	9
80	10	150	2	250	—	250	1
80	10	180	6	250	15	340	7
90	5	120	1	250	10	350	6
90	10	130	1	250	15	350	21
90	10	140	2	250	15	360	6
90	10	150	25	250	10* 15	400	2
90	10	180	14	250	15	400	1
90	10* 15	280	32	260	15	360	7
100	—	100	2	300	—	300	5
100	5	150	1	300	10	320	1
100	10	150	13	300	10	400	1
100	8	160	1	300	15	400	16
100	10	170	20	300	15	420	14
100	10	180	7	300	15	500	14
100	10	200	27	300	20	500	5
100	10	220	20	300	15	600	12
100	10	230	1	315	15	500	57
100	10	240	19	320	15	420	8
100	10	250	21	320	20	600	17
100	15	250	8	340	15	480	8
100	10	300	36	350	20	450	8
100	10* 15	300	102	350	15	500	7
100	15	300	42	350	15	545	10
100	15	400	13	350	20	600	26
105	—	105	1	375	20	500	5
130	5	160	1	380	20	500	4
130	10	250	2	400	—	400	1
140	10	180	5	400	15	500	4
150	10	200	9	400	20	500	4
150	10	230	1	400	20	600	10
150	10	240	1	400	20	700	2
150	10	300	9	500	20	600	5
150	15	400	1	520	20	650	6
160	10	250	7	550	20	650	8
160	10	280	9	600	—	600	1
160	15	300	6	600	20	800	4
170	10	230	1	650	15	800	7
170	10	260	1	670	20	800	2
180	10	280	1	700	25	900	7
180	10	300	10	700	25	1,000	16
200	—	200	4				
200	10	250	1				892

* *i.e.* 10*l.* for the first eight years, and 15*l.* afterwards.

—*Table showing the various Limits of Age prescribed by the several Departments; and the Number of Distinct Classes of Situation to which each Limit is applicable.*

Limits of Age.	Classes of Situation.				Limits of Age.	Classes of Situation.			
	Ordinary Clerks.	Extra and Temporary Clerks, Writers, &c.	Messengers and Porters.	Total of every Kind.		Ordinary Clerks.	Extra and Temporary Clerks, Writers, &c.	Messengers and Porters.	Total of every Kind.
0 to 30	—	—	—	3	19 to 28	1	—	—	1
0 „ 35	—	2	—	13	19 „ 40	—	—	—	1
0 „ 38	—	—	—	1	20 „ 23	—	—	—	1
0 „ 40	—	—	4	12	20 „ 25	—	—	—	3
0 „ 42	2	—	—	2	20 „ 26	—	—	—	1
0 „ 45	—	—	—	6	20 „ 30	1	—	—	7
0 „ 50	—	—	—	3	20 „ 35	1	1	17	30
2 „ 18	—	—	1	1	20 „ 36	—	—	—	1
3 „ 15	—	—	—	1	20 „ 40	—	—	4	18
3 „ 17	—	—	—	1	20 „ 45	—	—	1	1
3½ „ 15	—	—	—	1	21 „ 25	—	—	—	1
4 „ 16	—	—	—	1	21 „ 26	—	—	—	1
4 „ 18	1	—	—	1	21 „ 30	1	—	1	5
4 „ 19	—	1	—	1	21 „ 31	2	—	—	2
4 „ 20	—	—	1	1	21 „ 35	4	—	9	18
4 „ 30	—	1	—	1	21 „ 38	—	—	1	1
5 „ 16	—	—	—	1	21 „ 40	—	—	2	8
6 „ 19	—	—	—	1	21 „ 41	—	—	1	3
6 „ 20	—	1	—	1	21 „ 50	—	—	—	1
6 „ 23	2	—	—	2	22 „ 30	2	—	—	2
6 „ 25	6	2	1	15	23 „ 30	—	—	—	1
6 „ 28	1	1	—	2	23 „ 35	1	—	—	1
6 „ 30	9	4	1	14	23 „ 38	—	—	—	1
6 „ 35	1	—	—	4	23 „ 40	—	—	—	3
6 „ 40	—	3	—	5	23 „ 42	—	—	—	1
6 „ 0	—	—	—	1	23 „ 44	—	—	1	1
7 „ 23	—	—	—	1	24 „ 35	—	—	—	1
7 „ 24	—	1	—	1	24 „ 36	—	—	—	1
7 „ 25	16	3	—	22	24 „ 40	—	—	—	20
7 „ 30	6	5	—	15	24 „ 42	—	—	—	4
7 „ 35	2	2	1	10	24 „ 45	—	—	—	1
7 „ 36	—	—	1	2	25 „ 35	1	—	—	8
7 „ 40	—	—	—	2	25 „ 39	—	—	1	1
7 „ 45	—	6	—	6	25 „ 40	—	1	4	22
7 „ 50	—	—	—	1	25 „ 42	—	—	—	5
7 „ 0	—	1	—	1	25 „ 45	—	1	—	15
8 „ 22	1	—	—	1	25 „ 50	—	—	—	2
8 „ 23	1	—	—	2	25 „ 55	—	—	—	1
8 „ 24	2	—	—	4	28 „ 50	—	—	—	1
8 „ 25	35	8	—	53	30 „ 40	—	—	—	2
8 „ 26	3	—	—	3	30 „ 45	—	—	—	3
8 „ 28	1	—	—	1	30 „ 50	—	—	—	3
8 „ 30	13	7	—	25	35 „ 45	—	—	—	1
8 „ 35	7	2	3	18	35 „ 50	—	—	—	1
8 „ 40	7	2	1	12					
8 „ 45	3	2	—	6	Number of limits	30	24	20	93
8 „ 0	—	2	—	2					
9 „ 25	2	2	—	6	Number of classes	135	61	56	496
9 „ 26	—	—	—	1					

The PRESENT ASPECT *of* STATISTICAL INQUIRY *in relation to* SHIPPING CASUALTIES. *By* HENRY JEULA, F.R.G.S., F.S.S., *Honorary Secretary to the Statistical Committee of Lloyd's.*

[Read before Section F, British Association, at Norwich, August, 1868.]

THE loss of life and property by reason of marine casualties, has of late been so very considerable, that a short paper upon the subject of statistical inquiry directed thereto, can scarcely be out of place in the Section of Economic Science and Statistics, and it may not be altogether uninteresting to the members of the British Association to be furnished with a few particulars relating to the results at present attained in the effort to bring system and arrangement to bear upon a matter so intimately connected with us as a maritime people.

With the exception of some papers contributed several years since to the "Assurance Magazine," and more recently to the *Journal of the Statistical Society*, but little appears to have been done in the direction of systematising, and thus *utilising* the information which is continually accumulating from various sources in relation to the accidents so constantly occurring to our mercantile marine.

The admirable "Wreck Register of the Board of Trade" leaves, indeed, little to be desired in its own sphere; but dealing only with wrecks and disasters around our own coasts, the large and important area beyond remained unexplored.

A publication entitled "Lloyd's List," known, it may be, to many members of the Association, containing numerous reports of losses and casualties in different parts of the world, is issued daily by the committee for managing the affairs of Lloyd's, and it occurred to the writer, that if only this information, although not so wide-spread and complete as could be wished, were yet carefully arranged and so treated that it should be permanently available, very considerable advantage would ultimately accrue alike to sailors, shipowners, merchants, and underwriters.

An attempt was privately made to carry out this idea in relation to the casualties reported during the year 1864, and was so far successful that the Statistical Committee of Lloyd's was formed in 1866, and has already issued two annual publications for the years 1866 and 1867 respectively, giving a more complete analysis of wrecks and marine disasters spread over a larger area of observation than, it is believed, had ever been previously accomplished.

This analysis is a more elaborate and carefully compiled statement than the private one of 1864, but as by using the latter a comparison of *three years* is obtained, it may not be without interest to place a few of the more prominent divisions of casualty during those years respectively in contrast, merely premising that the record of 1864 was confessedly only "*approximate*," and must be accepted simply as such. (Table I, Appendix.)

As we learn from the "Wreck Register of the Board of Trade," that the number of wrecks and casualties occurring on and around our own coasts in the year 1864 was less than usual, it is not unreasonable to suppose that this exceptional lightness in disaster *may* have extended to other localities as to which we have no definite information, while it is equally possible that in the tables for 1864 *all* the casualties reported may not appear, and consequently the subsequent years be placed to that extent in a somewhat too unfavourable comparison.

The comparative approximation of the above figures in many of the divisions can scarcely fail to strike the careful observer, especially in relation to the two years 1866 and 1867, as to which the record may doubtless be taken as more thoroughly reliable.

Almost at the same moment that the subject of more extended statistical inquiry relating to marine casualties was occupying the attention of the Committee of Lloyd's, the "Administration du "Bureau Veritas," in Paris, was arranging a scheme having the same object in view, and from the interesting documents published by that body, I am enabled to lay before you, with some additions, the results so far attained.

A Table of Lost and Missing Vessels reported by the "Bureau Veritas."

	1866.			1867.		
	Lost.	Missing.	Total.	Lost.	Missing.	Total.
Sailing vessels	2,581	183	2,764	2,711	189	2,900
Steamers	165	3	168	131	14	145
Total	2,746	186	2,932	2,842	203	3,045

The year 1867 showing an excess as thus recorded on 1866, of 113 vessels lost or missing.

In the statements of the "Bureau" the *various nationalities* of the vessels are given, as far as they can be ascertained, from which the particulars (Table II, Appendix) are extracted, adding the percentages upon the total of each year.

For the purpose of bringing the information contained in this short paper to as late a date as possible, I have placed in the Appendix a statement of the wrecks and casualties for *the first quarter of the present year*, compared with the *average* of the two previous years—the most complete comparison as yet attainable. (Table III.)

It is very satisfactory to note that the casualties reported in the first quarter of 1868 were considerably below the average of the previous two years in number, although they appear to have been of a somewhat more serious character.

The comparatively small difference in the *proportions* of the several casualties of the respective years will again strike attention, ranging as for the most part it does between about half and 1½ per cent., only in *one* instance nearly reaching 4 per cent., and in *another* just exceeding 6 per cent. of variation.

Stranding and collision stand out pre-eminently in the percentage tables as the most terrible and numerous of accidents, and as a careful watch and good look-out are of the first importance in preventing each of such casualties, it may not be undesirable to add the following short comparative statement of the number of men employed in the year 1850, and in 1866, both per vessel and per 100 tons, relating as well to sailing vessels as to steamers:—

A Table compiled from the "Statistical Abstract for the United Kingdom," *issued by the Board of Trade, showing the Number of Men Employed in the "Registered Sailing and Steam Vessels (exclusive of River Steamers) of the United Kingdom, Employed in the Home and Foreign Trade" (Masters of Vessels are not included), in the Years* 1850 *and* 1866 *respectively.*

	Sailing Vessels.		Steamers.		Total.	
	Men Employed per Sailing Vessel.	Men Employed per 100 Tons.	Men Employed per Steamer.	Men Employed per 100 Tons.	Men Employed per Vessel.	Men Employed per 100 Tons.
Home Trade—						
1850	4·36	5·78	14·03	8·29	4·70	5·97
'66	3·34	4·60	14·39	6·12	3·93	4·83
Partly Home and partly Foreign Trade—						
1850	6·92	4·63	19·80	7·47	7·10	4·69
'66	6·50	3·61	18·64	4·34	7·31	3·72
Foreign Trade—						
1850	13·14	4·38	44·34	8·44	13·51	4·47
'66	14·63	3·02	36·67	5·18	16·73	3·31
Total—						
1850	8·17	4·71	20·42	8·31	8·46	4·83
'66	7·75	3·33	26·43	5·32	9·04	3·60

The facts shown in the foregoing table are brought out with perhaps greater distinctness in the one below:—

A Table showing the Percentages of Increase or Decrease in the Number of Men Employed per Ship and per One Hundred Tons during the Seventeen Years from 1850 *to* 1866 *inclusive.*

	Sailing Vessels.		Steamers.		Total.	
	Men Employed per Sailing Vessel.	Men Employed per 100 Tons.	Men Employed per Steamer.	Men Employed per 100 Tons.	Men Employed per Vessel.	Men Employed per 100 Tons.
Home Trade—						
Increase per cent.	—	—	2·57	—	—	—
Decrease "	23·39	20·42	—	26·18	16·38	19·10
Partly Home and partly Foreign Trade—						
Increase per cent.	—	—	—	—	2·96	—
Decrease "	6·07	22·03	5·86	41·90	—	20·68
Foreign Trade—						
Increase per cent.	11·34	—	—	—	23·83	—
Decrease "	—	31·05	17·30	38·63	—	25·95
Total—						
Increase per cent.	—	—	29·43	—	6·86	—
Decrease "	5·14	29·30	—	35·98	—	25·47

The record of the Statistical Committee of Lloyd's, embraces a careful geographical scheme of registration, which will, it is hoped, after a few years, become of considerable value; at present, the interval since its formation has been too short to afford reliable and useful results.

It would, therefore, appear that in view of the gradual development of careful inquiry, both in the United Kingdom and on the Continent of Europe in relation to the character and causes of disasters at sea, the friends of *economic science and statistics* may rejoice in their application to a subject of such great importance; and I now close my short memoir, trusting that ere long the advantages which it is admitted are connected with the systematic noting and registration of facts generally, will be more widely recognised as equally associated with *marine casualties* as with other fields of statistical inquiry.

APPENDIX.

I.—*A Table showing the Numbers, with the Percentages upon the Number of Vessels* [illegible] "Lloyd's List," *for the Year* 1864 (*approximately*

	Abandoned.	Anchors and Chains (Loss of).	Burnt or on Fire.	Capture and Piracy.	Cargo Shifted.	Collision.	[illegible]
Sailing Vessels—							
1864	240	166	130	250	26	653	[illegible]
Percentage on annual total	3·82	2·64	2·07	3·98	·41	10·31	[illegible]
1866	337	726	143	51	111	1,614	[illegible]
Percentage on annual total	3·53	7·60	1·50	·53	1·16	16·89	[illegible]
1867	428	737	121	5	131	1,706	[illegible]
Percentage on annual total	4·12	7·10	1·17	·05	1·26	16·43	[illegible]
Steamers—							
1864	3	4	32	68	—	143	[illegible]
Percentage on annual total	·45	·60	4·78	10·15	—	21·34	[illegible]
1866	4	17	30	3	6	344	[illegible]
Percentage on annual total	·39	1·65	2·92	·29	·58	33·43	[illegible]
1867	8	18	17	—	17	357	[illegible]
Percentage on annual total	·76	1·72	1·62	—	1·62	34·10	[illegible]
Total of Ships and Steamers—							
1864	243	170	162	318	26	796	[illegible]
Percentage on annual total	3·49	2·44	2·33	4·57	·37	11·45	[illegible]
1866	341	743	173	54	117	1,958	[illegible]
Percentage on annual total	3·22	7·02	1·63	·51	1·11	18·49	[illegible]
1867	436	755	138	5	148	2,062	[illegible]
Percentage on annual total	3·82	6·61	1·21	·04	1·30	18·05	[illegible]

II.—*Table of the Nationalities of the Lost and Missing Vessels reported by the* "Bureau Veritas."

	1866.		1867.	
	Number.	Percentage on Annual Total.	Number.	Percentage on Annual Total.
English	1,461	49·83	1,438	47·23
American	335	11·43	364	11·95
French	261	8·90	273	8·97
Dutch	96	3·27	112	3·68
Prussian	56	1·91	156	5·12
Norwegian	53	1·81	116	3·81
Italian	49	1·67	62	2·04
Hanoverian	48	1·64	—	—
Danish	41	1·40	69	2·27
Austrian	40	1·36	31	1·02
Spanish	40	1·36	45	1·48
Swedish	37	1·26	46	1·51
Hamburg	27	·92	12	·39
Russian	26	·89	39	1·28
Greek	24	·82	36	1·18
Bremen	17	·58	11	·36
Other countries	83	2·83	72	2·36
Unknown	238	8·12	163	5·35
Total	2,932	—	3,045	—

APPENDIX.

cidents Happened, of Twelve Principal Divisions of Maritime Casualties, extracted from npared with the Years 1866 *and* 1867 *respectively.*

Machinery Damaged, r Short of Coals.	Missing.	Mutiny or Sickness, &c., of Crew.	Stranded.	Sunk.	Annual Total Vessels.	
						Sailing Vessels—
—	74	43	1,702	460	6,283	1864
—	1·18	·68	27·09	7·32	90·36	Percentage on annual total
—	95	324	3,080	666	9,558	1866
—	·99	3·39	32·22	6·97	90·28	Percentage on annual total
—	93	331	3,174	685	10,377	1867
—	·90	3·19	30·59	6·60	90·84	Percentage on annual total
						Steamers—
58	3	1	183	37	670	1864
8·66	·45	·15	27·31	5·52	9·64	Percentage on annual total
194	3	25	301	62	1,029	1866
18·85	·29	2·43	29·25	6·03	9·72	Percentage on annual total
171	7	25	268	64	1,047	1867
16·33	·67	2·39	25·60	6·11	9·16	Percentage on annual total
						Total of Ships and Steamers—
58	77	44	1,885	497	6,953	1864
·83	1·11	·63	27·11	7·15	—	Percentage on annual total
194	98	349	3,381	728	10,587	1866
1·83	·93	3·30	31·94	6·88	—	Percentage on annual total
171	100	356	3,442	749	11,424	1867
1·50	·88	3·12	30·13	6·56	—	Percentage on annual total

II. *Contd.*—

The description of casualty was reported as under:—

	1866.		1867.	
	Number.	Percentage on Annual Total.	Number.	Percentage on Annual Total.
Collision	130	4·43	149	4·89
Condemned	160	5·46	177	5·81
Stranded and abandoned at sea	2,336	79·67	—	—
"	—	—	1,433	47·06
Collisions at sea	—	—	220	7·23
Sinkings "	—	—	452	14·84
Explosion	4	·14	5	·16
Fire	101	3·45	79	2·60
Cut by ice	15	·51	8	·26
Unknown	—	—	319	10·48
Missing	186	6·34	203	6·67
Total	2,932	—	3,045	—

III.—*A Table showing the Number of Wrecks and Casualties reported in* "Lloyd's List" *the Average and Percentages for*

	Number of Vessels.	Number of Casualties.	Nature of								
			Missing.	Abandoned.	Collision.	Sinking from Causes other than Collision.	Stranded.	Capture.	Piracy.	Burnt or on Fire.	[illegible]
Sailing Vessels—											
1868	2,632	2,909	23	91	453	101	843	—	—	33	[illegible]
Percentages	—	—	·79	3·13	15·57	3·47	28·98	—	—	1·13	[illegible]
Average of two previous yrs.	3,392	3,832	31	128	546	145	1,008	5	4	37	[illegible]
Percentages	—	—	·81	3·35	14·26	3·78	26·31	·14	·10	·97	[illegible]
Steamers—											
1868	280	297	5	—	77	6	86	—	—	2	9
Percentages	—	—	1·68	—	25·92	2·02	28·96	—	—	·67	[illegible]
Average of two previous yrs.	302	323	2	3	80	13	73	1	—	2	1
Percentages	—	—	·77	1·08	24·73	4·02	22·57	·15	—	·77	[illegible]
Total Ships and Steamers											
1868	2,912	3,206	28	91	530	107	929	—	—	35	[illegible]
Percentages	—	—	·87	2·84	16·53	3·34	28·98	—	—	1·09	[illegible]
Average of two previous yrs.	3,694	4,155	33	132	626	158	1,081	6	4	39	88
Percentages	—	—	·81	3·18	15·07	3·8	26·01	·14	·10	·95	[illegible]

ing the First Quarter of 1868, *with the respective Percentages thereon, compared with*
e period of the Two Previous Years.

ident.								Lives.			
ison of rgo der eck.	Jettison of Deckload or Washing Overboard.	Leaky.	Loss of Anchors and Chains.	Machinery Damaged or Short of Coals.	Mutiny, Sickness, Casualty to Crew, &c.	Ship Damaged, Loss of Bulwarks, &c.	Water-logged.	Crews Saved.	Crews Drowned	Lives Lost as far as Reported.	
56	21	286	151	—	70	628	4	295	24	—	*Sailing Vessels—* 1868
·93	·72	9·83	5·19	—	2·41	21·59	·14	—	—	—	Percentages
55	56	369	344	—	116	887	12	166	9	—	Average of two previous yrs.
·44	1·47	9·64	8·98	—	3·04	23·15	·3	—	—	—	Percentages
4	7	4	2	52	1	42	—	21	2	—	*Steamers—* 1868
·35	2·35	1·35	·67	17·51	·34	14·14	—	—	—	—	Percentages
2	7	10	11	66	8	41	—	5	—	—	Average of two previous yrs.
·77	2·16	3·24	3·4	20·56	2·47	12·83	—	—	—	—	Percentages
60	28	290	153	52	71	670	4	316	26	287	*Total Ships and Steamers* 1868
1·87	·87	9·05	4·77	1·62	2·21	20·9	·13	—	—	—	Percentages
57	63	380	355	66	124	928	12	171	9	458	Average of two previous yrs.
1·38	1·53	9·14	8·54	1·6	3·	22·34	·28	—	—	—	Percentages

On the CONDITION *of the* METALLIC CURRENCY *of the* UNITED KINGDOM, *with reference to the* QUESTION *of* INTERNATIONAL COINAGE. *By* W. STANLEY JEVONS, M.A., *Professor of Political Economy in Owens' College, Manchester.*

[Read before the Statistical Society, 17th November, 1868.]

CONTENTS:

PAGE
I.—On the Necessity for a Recoinage, and the Introduction of an International Money 426
II.—An Inquiry into the Amount and Age of the Gold Currency 438
III.—The Age of the Gold Circulation 447
IV.—Proportions of Coinage Surviving 453
V.—On the Deficiency of Weight of the Gold Coinage 454

I.—*On the Necessity for a Recoinage, and the Introduction of an International Money.*

> "All thinges good chepe I trust to se er I dye,
> Coyns, measures and weyghtes in good uniformitie
> Thorow all the world, I trust to se schortely."*

FOR nearly half a century the subject of the metallic currency has been left to slumber. The deficiency and imperfections of the coinage were, in previous years, an ever-recurring matter of complaint, and our libraries bear evidence to the inquiry and thought bestowed upon the removal of these defects by Locke, Vaughan, Lowndes, Newton, Harris, and many other writers. But now it is the paper currency and the banking system which give rise to endless publications, while the gold and silver currencies are regarded as placed upon an indisputable foundation.

There can be no doubt that we are much indebted to the act of Parliament (56 Geo. III, cap. 68, 22nd June, 1816), which still contains the principal regulations for the issue of our coins, and which was, to a great extent, based upon the recommendations of Lord Liverpool, in his admirable and celebrated "Treatise on the Coins "of the Realm, in a Letter to the King" (Oxford, 1805). Since that act came into operation both gold and silver coins have been issued, year after year, with hardly any intervention or change, excepting a very partial recoinage in 1841-43, so that we now have coins in circulation extending in almost unbroken succession over more than fifty years.

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* From a ballad of the sixteenth century (Printed by Cornelis Woltrop, dwellyng at Saynt Anthonies), pointed out to me by Mr. W. Langton. The next line runs—

> "*Onles that diversitie doth more good, it be true.*"

But I shall have to point out that the present law concerning the gold currency does not really work so perfectly as is supposed. It may possess a certain theoretical perfection, but in practice it has broken down, and it now fails to prevent our gold coinage from becoming seriously worn and depreciated. Although the Mint has coined since the beginning of 1850 the enormous sum of ninety-eight millions sterling, more than half these coins have become a prey to bullion dealers and exporters; and these vast issues have not had the effect of driving out of use the worn coins of earlier years. Some change of the law, or some very decided intervention of the State, can alone succeed in restoring to our standard of value its boasted perfection, or prevent it from becoming gradually depreciated still further.

But it happens that while intrinsic causes are arising for some alteration of our Mint regulations, the project of an international money, now for the first time put forward in a feasible shape, affords the strongest motives why we should reconsider our position in an enlightened spirit. The Royal Commission lately appointed for the purpose have allowed, in their somewhat ambiguous report, the extreme utility of an international money, but have pointed out certain technical difficulties which must, in their opinion, prevent this country from taking any steps to further this truly grand scheme until after much further deliberation. I do not hesitate to say that these difficulties are wholly imaginary, and arise either from a misapprehension of the theory of value, or from the difficulty of overcoming the prejudices of a state of things now likely to pass away. I feel sure that there is no difficulty that need prevent us from at once joining the international monetary convention. This step would at once place the realisation of a world-wide money beyond doubt; and it might be made without in the least disturbing the standard of value in this kingdom, or occasioning any breach of contracts or alteration of accounts. A concurrence of circumstances truly remarkable renders it almost indispensable that we should make the change required; and I undertake to show that instead of occasioning cost and difficulty the trifling alteration of the sovereign is the only mode by which we can impart practical as well as theoretical perfection to our metallic currency.

The change which is pressed upon us by so many considerations is of the simplest possible character, and consists merely in the Mint coining gold sovereigns for the future nearly 1 per cent. less heavy than at present, this quantity of gold to be appropriated as a mint charge to cover the cost of coinage and maintenance of the currency.[*] We should thus secure the following remarkable series of advantages :—

1. Our sovereign, being assimilated in value and weight to a 25-franc piece, would at once become the current coin of the world, and being issued chiefly from British, American, and French mints, a world-wide gold currency of unimpeachable fidelity and excellence would be obtained.

2. As the sovereign would soon become current in all civilised countries, it would no longer be necessary in making remittances to melt the coin and have it recoined at considerable charge in a foreign mint. The foreign exchanges would then be more quickly and accurately adjusted than at present, and our standard of value, instead of being impaired, would really become more perfect.

3. The questionable practice of picking the heavy sovereigns for remittance or for melting, which is now universally practised, would be almost entirely prevented, and we should no longer stand in the absurd position of coining many millions of sovereigns which pass almost immediately to the melting pot.

4. The Government being relieved, without cost to any one, of the expenses of coinage, might very properly take upon themselves the withdrawal of improperly light coins, the circulation of which is liable to occasion most unjust loss and inconvenience under the present law.

As the Royal Commission do not deny the advantages of an international currency, I shall mostly confine myself to meeting the supposed difficulties and the real prejudices which stand in the way.

The most formidable of these prejudices, I conceive, arises from our national pride in the fact that the sovereign is known and respected in nearly all parts of the world, and is the actual currency of some countries, such as Portugal, Brazil, and Egypt. Our present system of free coinage tends, it is supposed, to promote this diffusion of British coin, and the cost of coinage is regarded as a trifle compared with the dignity of this position. We overlook the fact, indeed, that we probably bear the expense of the wear of sovereigns in all parts of the world, for about a million and a-half sterling of British coin is reimported every year on an average, according to the Custom House returns. This coin will include at least an average amount of light coins, while it is certain that the coin exported consists almost entirely of heavy coins. The home circulation thus becomes the sink into which all light coins will readily find their way, to our cost.

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[*] For the details of this scheme I must refer to the privately-printed pamphlet of Mr. Hendriks, in which it was, I believe, first advocated in this country, or to the very able evidence and memoranda of Mr. S. Brown, Mr. Hendriks, and Colonel Smith, printed in the recent report of the International Coinage Commission.

Supposing, however, that the diffusion of the greatest quantity of British coin over the world is a worthy object, shall we not best attain it by entering the convention? Surely it is we that will become by this step the great producers and distributors of the coinage of the world. As we strive, by opening our ports and accommodating our productions for foreign use, to render this island the great depôt and manufactory of the world, so we shall, by rendering our coinage fit for foreign circulation, acquire a nearly complete ascendency in the specie trade. In Australia, in New Zealand, and probably in South Africa, we hold the most productive gold mines in the world, and of what is produced elsewhere a large part passes direct to London, the monetary centre of the world. We shall, therefore, become, without doubt, the greatest coiners. The possessors of California, it is true, will be our partners in this monopoly, but they are friends whom we can trust to coin as faithfully as ourselves. British mints, therefore, in company with Anglo-American mints, will become to the gold currency of future years even more than the mints of Spain, and Peru, and Mexico have been to the silver currency. The Spanish dollar has long been the most esteemed coin, and has even circulated in this country within the present century. But gold is now definitively taking the place of silver, and some gold coin must take the place of the dollar. If we are not misled by foolish pride, we shall take, while we can yet do it with a good grace, the step of adopting our sovereign to become the new gold currency of the world.

I may add, that if we place any opposition or obstruction in the way of the International Monetary Convention, they have a most justifiable and powerful weapon ready to ensure our defeat. It is only necessary for the continental nations and the United States to issue, as is already proposed, a piece of 25 frs. in order to supplant the sovereign. For as the new coin would have the value of a well-worn sovereign, it would soon be accepted equally with the sovereign in all foreign countries and our colonies, if not at home. At the same time, the difference of value being about *2d.* in the pound, would ensure the melting of all new sovereigns in preference. Thus, however many sovereigns are coined, we should never succeed in dislodging the 25-franc piece from circulation. More even than at present, our British mints would perform the labours of the Danaïdes, ever pouring forth new and beautiful coin, at once to disappear into the bullion dealer's crucible. The sovereign would be an evanescent coin, constantly liable to be recoined with the permanent impress of a foreign mint. Common sense, as well as invariable experience, tell us that we must be worsted in this contest of the heavier and the lighter coin.

But the great bugbear which appears to have deterred the royal commission from recommending the slightest change in our currency laws, is the supposed injury to the theoretical perfection of our standard of value. If, on the one hand, we lower the sovereign without imposing an equivalent mint charge, we violate all contracts, and degrade the old standard to the extent of *2d.* I need hardly stay to point out how easily all home contracts, of any considerable amount, could be readjusted by law, the alteration of accounts being no more difficult than that performed frequently in the case of the income tax. As regards smaller payments, which cannot be so readjusted, it might surely have been noticed, that an exact adjustment of price is hardly ever attempted in such cases, the nearest round number of shillings or pence being arbitrarily chosen. Tolls, cab fares, many railway fares, entrance fees, &c., in short small customary charges of a fixed character are never calculated so as to meet the exact average cost, which could seldom be done. An approximate round sum is chosen with a view to convenience, and profit and loss are left to adjust themselves. To the same natural adjustment might be equitably left the very small arbitrary change of *2d.* in the pound.

But all inconvenience or injustice arising from the change of the sovereign, might be entirely avoided by the imposition of a seignorage, or mint charge, equal in amount to the value of the gold subtracted. This seignorage is really desirable on several other distinct grounds, but it is condemned by the Commission, as tending to destroy the theoretical perfection of our standard of value. With all respect to the eminent members of this Commission, I must hold that some of them have lost their way in the intricacies of the theory of value. Questions were even asked which implied that value was something inherent in a coin, like its colour or its weight, so that the value must be reduced with the weight. This is a radical misapprehension, which must prevent any clear or sound conclusions on the subject.

To understand the point in dispute, we must remember that there is no such thing as value intrinsic in a thing, but that, in an economical sense, the values of two things merely express the ratio in which they do as a fact exchange for each other. Thus if, *de facto*, 100 ounces of gold are taken to the mint every day, and 99 ounces of coin received back in exchange, this would actually establish the fact that 99 ounces of coin have the same value, at the time and place in question, as 100 ounces of gold. Since the facilities of transit render the values of bullion and coin sensibly the same all over the country, it follows that as long as there is any demand for coin at the mint, the values of gold and coin are defined by the mint ratio of exchange. The value of the coin, compared with bullion, cannot be raised above this rate without the mint being set to work to restore equilibrium. On the other hand, the value of coin cannot fall unless there be already a superabundance of it, so that the mint is stopped working. In this case the value of the coin may undoubtedly fall more or less, provided that there are persons who wish to have gold in the form of bullion rather than coin. So soon as the comparative values were altered 1 per cent., it would be profitable to make the reverse exchange by melting the coin into bullion. But why should bullion be wanted and not coin? At present bullion is wanted because our coins cannot be used to make payments in foreign countries where they are not current, and they therefore lose, on passing our shores, whatever value may attach to them as coins. But the proposition of an international money, altogether alters the facts of our argument. Should our coins be current abroad, and should foreign mints charge a seignorage exactly equal to ours, as is proposed, then it must happen that when we have to make a payment abroad, or, in other words, to add to the currency of that country, our coins will bear exactly the same premium over bullion for that purpose that they have here. The reduction of coin into bullion would then necessarily produce a loss, and would only be resorted to for purely exceptional purposes.

So imbued are we with the prejudices and imperfections of our present system, that we cannot easily conceive the natural result of an universal money, namely, that gold and silver would be almost wholly held in the form of coin. Certain small supplies of bullion would, no doubt, be convenient for gold and silversmiths, gilders, and other artisans who consume the precious metals; but in respect to its main employment, it would be found almost always advantageous to convert gold into coin at the first opportunity, as its value is thereby exactly ascertained, and all future expenses for melting and assay would be avoided.

It is now apparent that our standard of value will be improved instead of being injured by the proposed arrangements. For at present, when the exchanges are against us, our currency must always be liable to fall in value to the extent of the mint charge in foreign countries, in addition to the costs of transit. But in the proposed international system, the coins having already paid the mint charge, will effect payments abroad without any depreciation.

One paragraph in the report of the commissioners betrays a confusion of thought, for they say: "If the new sovereign, contain-
"ing only 112 grains of fine gold, retains, in consequence of the
"imposition of a seignorage, the value of the old sovereign, it would
"retain its superiority in value over 25 frs. If it is equal in value

" to 25 frs. of the present French currency, it would not be equal in " value to the existing sovereign."

But it is apparent that at present, in the absence of an international currency, we measure only the gold in our sovereign against the gold in 25 frs., and, in calculating the par, no account is taken of the mint charge in France, which is an uncertain amount. The fact has even come out during the discussion, that the true pars of exchange are not accurately ascertainable in the absence of precise information concerning the mint charge in different countries.* No exact comparison can at present be made between the value of the franc *plus* a mint charge, with the sovereign without a mint charge. But it is indisputable that if both coins and mint charges are exactly assimilated, there will be no difference in value possible between the currencies of France and England but such as may arise from the natural variation of the exchanges, and this will be restricted within the very small cost incurred by the transmission of specie.

The grounds on which a mint charge has been hitherto opposed in England, are stated in the clearest manner in Lord Liverpool's treatise, and are four in number:—

1. Because the principal measure of value would not in such case be perfect.

2. Because merchants in exporting the coins would lose the mint charge, and would raise the price of foreign goods in order to transfer the loss to consumers.

3. Because a reduction in the weight of the sovereign would be necessary, and, consequently,

4. A recoinage would be requisite.

But when Lord Liverpool set forth the above objections he had no thought of an international money, which is a condition changing the whole grounds of the question. It is apparent that merchants will lose no mint charge if they send abroad coins equally current there as here; that, therefore, the whole necessity for the reduction of coin to bullion will disappear, and the coin, minted under uniform conditions, will form as perfect a measure of value for the future as bullion or freely coined gold has been in the past confusion of currencies. I may say, with confidence, of Lord Liverpool, what he has said of Mr. Locke:† "Observing that the

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* See a statement by Mr. Hendriks, who throws great light upon this subject, in the "Report of the International Coinage Commission," p. 142. Mr. E. Seyd, in a pamphlet published since this paper was written, attempts to show that the cost of converting gold bullion into coin is usually higher in London than in Paris. Much new technical information concerning the bullion trade is contained in Mr. Seyd's new work on "Bullion and Foreign Exchanges."

† "Treatise on the Coins of the Realm," p. 172.

" state of the coins of the kingdom is wholly changed from what it " was when he considered this subject, it is probable that, if this " great man had lived to the present times, he would have been " sensible of the change: he would have applied his principles to " the facts as they now exist, and would have drawn his conclusions " in conformity to them."

It will be noticed that, in addition to theoretical reasons, which operated against the expediency of a mint charge in Lord Liverpool's days, but which will vanish when coins are of international currency, there were in those days two strong practical difficulties —that a reduction of the sovereign and a recoinage would be requisite. But it so happens that this reduction of the sovereign is the very thing we now want to effect, and the mint charge is recommended as a mode of effecting it without trouble. The first three of Lord Liverpool's objections having been completely reversed, it is truly strange to find that the fourth has suffered the same fortune by the course of time. The costs of recoinage are not incurred, but are positively saved by our accepting the proposals to assimilate our sovereign to a 25-franc piece.

The free mintage system and the other provisions of our present currency law are gradually landing us in a position of much difficulty. For the law at present holds that a sovereign is not legal tender unless it weighs at least 122½ grains; and, as a kind of legal fiction, every person is supposed to have by him, whenever he receives gold coin, a pair of scales capable of detecting light gold. Every person must bear the loss if he receives a coin which is afterwards rejected as too light, and the Government declines all responsibility concerning the weight of gold coin when once in the hands of the public. But the weighing of coin is so generally impracticable and troublesome, and even the refusal, much more the cutting of a light coin, would so often be considered a discourteous act, that the practice is almost entirely abandoned by the public. Such banks and railway companies as cannot altogether avoid loss on this account, prefer to bear it rather than inconvenience their customers, but almost everybody manages to put off the loss by passing on the light coins. The Bank of England and its branches and a few Irish banks alone observe the law with rigour. The natural consequence is, that all experienced persons, in making payments to the Bank of England, keep back worn coins with great care, and the bank is rendered powerless in withdrawing an adequate quantity of light money. Thus it arises that there is a mass of about 20,000,000 of light sovereigns and 5,000,000 or 6,000,000 in value of half-sovereigns circulating in defiance of the law. This light coin forms almost a third part of the sovereign circulation, and nearly a moiety of the half-sovereign circulation;

but, being unequally distributed, we find that in some of the agricultural districts the proportion of light sovereigns rises to 44 per cent. The average deficiency of the sovereigns, as I shall show, is fully ·53 per cent., or more than 10*s.* in 100*l.*, while the half-sovereigns are depreciated more than twice as much, or about 22*s.* in 100*l.*

Much evil and injustice arise from this discreditable state of our currency. The public having universally abandoned the weighing of coin, the burden of the light gold is most unequally borne, and falls chiefly upon the districts where coin tends to accumulate. I shall give evidence tending to show that new coin is mostly distributed in the manufacturing districts, where there is always a want of coin for the payment of wages. In such parts little or no loss from light gold is encountered. But there is a strong tendency for the coinage to migrate into the agricultural districts, and a plethora of gold presses upon the banks which serve such districts. The loss incurred in remitting this surplus of gold to London would be of a most serious amount, were not the practice universally adopted in such circumstances, of picking out the new Victorias for remittance, the old worn coin being put into circulation again as soon as possible. This process of sieving and picking, through which the gold coinage is perpetually passing, is not only a source of labour and trouble, but is of questionable legality and expedience. And though most bankers may thus succeed in escaping loss, the weight falls all the more unfairly upon those who happen to have too great a plethora of coin. Thus, I have unquestionable information that one large banking establishment lost in this way, during the year ending 30th September, 1868, the the sum of 6,716*l.*, and this, I am assured, is in addition to "a large "loss in interest on the stock we keep, so as to avail ourselves of "any opportunity of placing the coin in circulation." As the average loss upon the light gold sold as bullion by this bank was 1·363 per cent., it would evidently be better to keep the coin on hand for many months at the present rate of interest, provided it could be ultimately pushed off into circulation. I apprehend, too, that the lightness of the coin must restrict the use of Bank of England notes in some districts; for the loss of interest on a bank reserve will be the same whether it be held in notes or coin. Thus many banks which have a surplus of gold will hold it for the chance of being able to pay it away to the public rather than bear the loss on the light coin in replacing it by notes, as might otherwise have been done to the convenience of every one.

This is a weak statement of the evils which follow from our depreciated gold currency. I feel sure that as soon as public attention is called to the subject, it will be found impossible to resist the necessity for a recoinage like that of 1841-43, but on a more extensive scale, which shall restore to our standard of value its due credit and perfection. Twenty-five years have elapsed since the Government last undertook the charge of withdrawing light coin, and, though the Bank of England has continued to withdraw annually about half a million, or in the last few years rather more, this is wholly inadequate to meet the accumulated wear of a great currency. Assuming, then, that the Government must, before long, undertake the charge of a recoinage, let us consider the comparative cost under the old and the proposed new system.

The sovereigns in circulation amount, as I shall show, to 64,500,000 at the most, of which 31½ per cent. are below the legally current weight. In short, about 20,000,000 of sovereigns require to be withdrawn if we desire to maintain the credit of our currency on its present footing, together with 11,500,000 of half-sovereigns, in all 31,500,000 coins. The cost of this recoinage, as afterwards shown, may be estimated at 348,000*l.* Regard it how we will, this is a sum which, if we maintain our present law, must be paid either by individuals in an arbitrary and unjust method of taxation, or by the Government in a more equitable manner.

But now let us consider how legitimately and easily we may use the present circumstances of our circulation to assist in the beneficent scheme of an universal money.

Judging from the age of the present circulation of sovereigns, which is a pretty sure guide to the weight, as subsequently shown, I should estimate their relation to the weight of the 25-franc piece as follows :—*

	Per Cent.
Too heavy to pass as 25-franc piece	70
Of proper weight	25
Too light	5
	100

In introducing the new sovereign, the 25 per cent. of the old ones which are of proper weight would, of course, be left untouched for the present. The 5 per cent. of lighter ones might also be left, as they would, by degrees, fall into the Bank of England in the ordinary course of business, so soon as the practice of picking the coins was abandoned, as it would doubtless be. The remainder of the sovereigns in the hands of the public, with all the new coin in the Bank, might be recoined at a convenient rate, and the quantity being 48,500,000 at the most, could be reissued, if necessary, in three years, at a cost of about 65,000*l.* The excess of weight of the old sovereign over the new coin, would yield a sum of 280,000*l.*, which, if secured in the form of a mint charge, would form a net profit to the Government of 215,000*l.* This recoinage might be carried out by the Mint buying up each sovereign with a new 25-franc piece, appropriating the difference of weight as a part of the intended mint charge of 1 per cent. The full charge would, of course, be imposed on any bullion brought for coinage, so that the new coin would at once have, for home circulation, exactly the same value as the old sovereign. There would be no necessity, indeed, for the Mint to make any unusual recoinage at all, except for the purpose of securing the profit, and only just such coins as return an adequate profit need be withdrawn at first. For years to come the exporters and melters of the coinage will doubtless operate as they have been accustomed to do, and the real establishment of an universal money must take many years to effect. To them it might be left to clear off such sovereigns as the Mint could not recoin with advantage. In fact, as the whole change of weight lies well within the limits of weight of the coins now in familiar use, the public need never feel that any change is being made at all except by noting the improved appearance of the new coins.

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* The standard weight of the 25-franc piece of gold, eleven-twelfths fine, is taken at 7·9179 grms. (122·19 grains), with a mint allowance of + or − 2 per mille, and an allowance for wear in addition of − ½ per cent. The higher and lower limits of currency are thus 7·9337 and 7·8625 grms. In the "Transactions "of the Manchester Statistical Society," 1868, p. 88, I have given a somewhat different statement, on the supposition that ½ per cent. deviation from the standard, in excess or defect, might be allowed.

The half-sovereigns might for a time be left untouched, as they would, to a great extent, be of proper weight to pass as 12½-franc pieces, and would be required only for home use.

The total difference, then, of the two modes of effecting a recoinage is a possible profit of 215,000*l.*, instead of a certain loss of 348,000*l.*; in all a difference of more than half a million. In imposing a mint charge, however, the Government might most properly undertake to prevent the coinage falling again into its present discreditable state by constantly withdrawing, at its own cost, a certain amount of light gold. The loss would be more than covered by the mint charge on an average of years, and as British mints would coin for other countries more than they would coin for us, in fact, as we should levy considerably more revenue at the mint than they, we need not fear being improperly burdened with a loss on worn coin. Some international agreement may become necessary as to an equitable mode of distributing this loss, but it is certain that we need no longer pay out of our own pockets both the cost of coinage and the cost of the wear of coin in several foreign countries and many colonies as we at present do.

Whatever it may have formerly been, our free coinage system will for the future be reduced to a complete absurdity, and can be supported only by unreasonable prejudices. It was long ago described by Sir Dudley North as "a perpetual motion found out, "whereby to melt and coin without ceasing, and so to feed goldsmiths and coyners at the publick charge;" and such it continues to the present day. It is condemned by the experience of all foreign governments which have tried it, nor is it at all supported by our greatest economists, for Adam Smith, Ricardo, Tooke, J. S. Mill, and many others agree in regarding a small mintage as a sound and desirable imposition. Not only is the present Master of the Mint clearly in favour of a mint charge, but I find, from a correspondence of the year 1852, published in the Report of the International Coinage Commission, that Sir John Herschel, while Master of the Mint, had formed a strong opinion against the present system, and had most clearly and forcibly pointed out the evils and absurdities into which it leads us.

The time is come, then, for us to make that slight alteration in the law of 1816, which shall at once remedy the technical imperfections in our currency and secure to ourselves and to the world a boon which we could hardly have conceived possible a few years ago. Our main object should be to aid in the establishment of an universal money, which shall furnish every nation with a sure standard of value and an uniform medium of exchange. Had we, in pursuit of so great an end, endured some inconvenience at home, we should be amply repaid by gain abroad. Our interests are in every part of the world; our traffic is with every country both civilised and uncivilised. By a far-sighted policy we have promoted the most free exchange of commodities with all the world, but our financiers seem to be unable to see that a similar policy in regard to money is a natural and necessary corollary. It is well to have a good currency at home, but to our foreign trade it is equally important that there should be a good currency abroad. The calculations of profit must be based upon one as much as upon the other. At present the calculations of the foreign exchanges require great skill and experience, and foreign merchants are generally superior to our own in the mysteries of commercial arithmetic. It was given in evidence that shippers of goods, even to some parts of the continent, have to charge a small advance of price to cover their uncertain knowledge of the foreign money, and in other parts of the world the confusion and imperfections of the currency are far worse.

All this will be gradually changed if we join the Monetary Convention, and adapt our sovereign for foreign circulation; for we should bring with us our great system of trade, our many colonies, and in time the currency of our Indian dependency. The United States would decide the question as regards North America, and the new sovereign, as we might continue to call it, becoming current in all civilised countries, would soon find its way to every part of the globe. It would soon form an accurate term of comparison, and might eventually compose the mass of the currency; at the same time our home circulation would be improved without the least trouble or cost, and no prejudice would be done to the future introduction of a decimal system. It would be an act of the greatest folly in us to make any radical alteration in our fractional money before the future unit of the Monetary Convention shall have been chosen. This unit will certainly be in a simple ratio with the franc, so that the assimilation of the sovereign to the 25-franc piece will be the first and most judicious step towards a decimal money.

In the following parts of this paper I shall give the details of an investigation into the quantity and condition of our gold currency, upon which many of the preceding estimates and arguments are founded.

II.—*An Inquiry into the Amount and Age of the Gold Currency.*

In order to ascertain as precisely as possible the amount and condition of the gold currency, I have lately carried out an inquiry into the composition of the currency as regards age. It occurred to me that if the comparative number of sovereigns of different years' coinage now in circulation were determined by a kind of partial census, not only might some new facts come to light, but data might be obtained for solving several important problems. The amount of the currency might thus, as it seemed to me, be estimated with more certainty than has hitherto been possible, for it necessarily happens that the coinages of recent years are less diminished by exportation, melting, or loss than those of earlier years; and as there are no reliable data for estimating the great amount of coin thus subtracted from our circulation, the only resource is to eliminate these quantities, as far as possible, from our calculations. Now this can be done by taking the coinages of recent years as a measure to apply to the whole currency; for just as we estimate the length of a room by trying how many paces long it is, although we do not know with perfect accuracy the length of a pace, so I thought that the number of coins of a few recent years now in circulation, although not known with much precision, would yet be the best standard of measurement. This is no new mode of estimation in statistics, but it has not hitherto been applied to this subject with any care.

To carry out this notion, I distributed a circular letter and blank form to a number of bankers and other gentlemen, requesting them to take one or two hundred pounds in sovereigns, and half the amount in half-sovereigns, from gold received in the ordinary course of business, and to cause the number of coins of each date to be counted and stated in the form. The aid thus requested was furnished with a readiness which I had no right to expect, and which I cannot sufficiently acknowledge. Not a few gentlemen, on becoming acquainted with my purpose, procured very extensive returns,* and the final result was that this kind of census of the gold coinage was extended over one-sixth of a million of coins thus composed:—

Number of sovereigns enumerated................	90,474
" half-sovereigns "	75,036
Total number	165,510

At least one gold coin in every six hundred now existing in this country was, on the average, enumerated; and as there were 321 separate returns received from 213 distinct towns or localities, including almost every place of commercial importance, it may be allowed, I think, that sufficient data were acquired for determining the average character of the circulation.

A complete reduction of these returns yields the following table of the comparative number of sovereigns and half-sovereigns of each year's coinage found in 100,000 coins; for sake of comparison, the actual number of coins issued in each year are added:—

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* I am especially indebted to the Governor of the Bank of Scotland for an enumeration of 48,647 coins at the various branches of that bank. The general manager of the London and Westminster Bank most kindly forwarded me a similar complete return for his district. Messrs. Biddulph and Wood, of Swansea, procured me many valuable returns from the banks and large works in that neighbourhood, and to the following I am indebted for special aid in procuring the larger enumerations: Mr. Walliker, postmaster of Hull; Professor J. E. T. Rogers; Mr. John Mills and Mr. Thomas Browning, of Manchester; Sir John Lubbock; Mr. Sargant, Messrs. Chance Brothers, and Mr. Chamberlain, of Birmingham; Mr. J. Pilling, of Stafford; Mr. Eugene Bean, of York; Mr. J. H. Barber, of Sheffield; and Mr. Henry Haley, of Halifax.

Year of Coinage.	Sovereigns.		Half-Sovereigns.	
	Number Issued from the Mint. [000's omitted.]	Number now Existing in 100,000 Sovereigns Circulating.	Number Issued from the Mint. [000's omitted.]	Number now Existing in 100,000 Half-Sovereigns Circulating.
1817	3,235,	198	2,080,	384
'18	2,347,	8	1,030,	136
'19	4,	1	—	3
1820	932,	308	35,	43
'21	9,405,	738	231,	8
'22	5,357,	485	—	8
'23	617,	87	224,	35
'24	3,768,	334	592,	167
'25	4,200,	1,239	761,	247
'26	5,724,	2,201	345,	181
'27	2,267,	915	492,	172
'28	386,	38	1,245,	430
'29	2,445,	1,057	4,	12
1830	2,388,	843	—	11
'31	599,	428	—	1
'32	3,737,	1,718	—	8
'33	1,225,	645	—	16
'34	—	15	134,	4
'35	723,	340	773,	542
'36	1,714,	937	147,	113
'37	1,173,	1,080	160,	148
'38	2,719,	750	273,	245
'39	504,	223	1,	53
1840	—	8	—	67
'41	124,	109	509,	774
'42	4,865,	3,057	2,223,	4,654
'43	5,982,	3,298	1,252,	1,277
'44	3,000,	1,918	1,127,	2,796
'45	3,801,	2,178	888,	645
'46	3,803,	1,987	1,064,	2,395
'47	4,667,	2,797	983,	897
'48	2,247,	685	411,	885
'49	1,755,	898	845,	1,912
1850	1,402,	1,285	180,	438
'51	4,014,	1,756	774,	1,649
'52	8,053,	4,082	1,378,	2,559
'53	10,598,	6,536	2,709,	8,400
'54	3,590,	2,277	1,125,	253
'55	8,448,	4,020	1,120,	7,606
'56	4,806,	2,831	2,392,	4,374
'57	4,496,	3,200	728,	2,804
'58	803,	1,060	856,	2,412
'59	1,548,	1,565	2,204,	9,561
1860	2,556,	3,070	1,131,	4,185
'61	7,625,	5,226	1,131,	4,438
'62	7,836,	7,005	—	550
'63	5,922,	8,202	1,372,	5,281
'64	8,656,	10,469	1,758,	7,538
'65	1,450,	1,437	1,835,	9,005
'66	4,047,	2,774	2,059,	7,542
'67	—	63	993,	1,054
Australian....	—	1,619	—	1,078
Totals	171,563,	100,000	41,574,	100,000

Note.—Some real and some apparent inaccuracies in this table are noticed in later parts of the paper.

I will describe firstly the results to which this census leads as regards the magnitude of the circulation. We observe in the above table that out of every 100,000 sovereigns now in circulation, 18,671 sovereigns are found on an average to bear the dates 1863 or 1864. Though the proportion of such coins undoubtedly varies in different localities, I feel certain, after drawing up many averages, that this proportion must be very near the truth. We may say, therefore, with confidence, that the whole circulation of sovereigns is $\frac{100,000}{18,671}$, or 5·356 times (5⅓) as great as the number of sovereigns of 1863-64 now in the hands of the people. But the whole number of sovereigns coined in those years, as stated in the table, amounts to 14,578,000*l.*

The whole of this sum had not indeed, in March last, when the enumerations were for the most part made, passed into circulation; for according to information furnished to me by the Governor of the Bank, through the kind aid of Mr. Alfred Latham, it appears that the bank held the following quantities of sovereigns:—

	£
Sovereigns coined in 1864	600,000
„ '65	500,000
„ '66	2,300,000
Australian gold	100,000
Total unmixed coin	3,500,000
Mixed sovereigns received from circulation	2,600,000
	6,100,000

As 600,000 sovereigns of the coinage of 1864 were thus lying in bags as received from the mint, they cannot have contributed anything to the proportions shown in my census. The quantity of sovereigns of 1863-64 in the hands of the public cannot exceed, therefore, 14,578,000*l.* minus 600,000*l.*, or just about 14,000,000, and as the whole of the mixed circulation of sovereigns is 5⅓ times this quantity, it is thus ascertained not to exceed 75,000,000. In this quantity are included all masses of sovereigns which do not greatly differ in age and composition from the general average as shown in my census. I have no reason to suppose that bags of unmixed coin as issued by the mint, or other peculiar parcels of coin, exist anywhere in considerable quantities but in the Bank of England, where they amounted in March last, as already stated, to 3,500,000. Adding in this sum, we find that the total stock of sovereigns in this country cannot exceed—

	£
Mixed coin of various age	75,000,000
Undistributed coin	3,500,000
Total	78,500,000

By a similar calculation, I have determined that the number of half-sovereigns cannot be conceived as exceeding 24,000,000, or 12,000,000*l.* in value, for it will be seen, from the enumeration of 75,036 half-sovereigns, that 12,819 out of every 100,000 in circulation, are found to be of the coinage of 1863 and 1864. In other words, the whole circulation of half-sovereigns cannot exceed $\frac{100,000}{12,819}$, or about eight times the whole coinage of half-sovereigns in 1863-64. Now, as the coinage of those years amounted to 1,565,000*l.* (3,130,000 pieces, see table, p. 440), we have only to multiply this by 7·8, and we then ascertain that the total number of half-sovereigns cannot exceed about 12,000,000*l.*

The whole circulation of gold in the United Kingdom cannot, therefore, exceed—

	£
Sovereigns	78,500,000
Half-sovereigns	12,000,000
	90,500,000

This sum, however, is not the probable amount of the circulation, but the maximum limit within which it must lie; for it is certain that some portions of the coinage of 1863-64 have already been exported or melted, and for every million sovereigns thus withdrawn, $5\frac{1}{3}$ millions must be subtracted from our estimate. In attempting to make some allowance of this kind, we shall commit no appreciable error, and shall be in fact on the safe side in supposing that the whole exportation has fallen on the sovereigns, and this we are obliged to do, as the custom house returns do not discriminate sovereigns and half-sovereigns. The quantities of British gold coin registered for export since 1864 are as follows:—

	£
Registered exports in 1865	3,390,910
" '66	4,007,089
" '67	1,266,654
	8,664,653

There is no means of determining from the above, with any accuracy, how much of the coinage of 1863-64 has been exported, but as exporters prefer the newest and heaviest coin, we are probably safe in assuming that the sovereigns of 1863-64, which form about one-fifth of the sovereign currency, also form one-fifth of the above exports. We may then subtract 1,750,000*l.* from the coinage of 1863-64, which formed the basis of our calculation. Our estimate will then stand as follows:—

		£
Sovereigns coined in 1863-64		14,600,000
Subtract: in Bank	600,000	
„ exported (say)........	1,750,000	
		2,350,000
		12,250,000
Multiply by..................................		5·356
		65,600,000

Reducing this a little for the sake of getting round numbers, we may state our estimate finally as follows:—

	£
Sovereigns in circulation	64,500,000
Unmixed sovereigns	3,500,000
Half-sovereigns	12,000,000
Total gold circulation................	80,000,000

Since I commenced this inquiry, facts have come to my knowledge which altogether prevent me from supposing that the gold coinage is as much as the above. Any pretensions to rigid accuracy, which the preceding calculations might otherwise possess, are removed by the selection and melting of newly issued coins, which is believed to be extensively carried on by the largest and most respectable firms of capitalists and bullion dealers. No precise information can be procured as to the amount of the newest and heaviest coins thus destroyed but they may be asserted to amount to millions in the course of the few last years. Reference is made to this practice in the Report of the British Representatives at the recent Paris conference, in the following terms:—

" There is reason to believe that large masses of new British " sovereigns are occasionally treated so as to separate out the heavy " pieces, and these are disposed of as bullion; while the lighter " pieces, which may still be all of legal weight, are preserved and " put into circulation. This fact will not surprise those persons " who are aware of the small margin of profit upon which bullion " transactions are often conducted."

Now if, in the prosecution of this peculiar trade, a million sovereigns of 1863-64 have been melted up, we must reduce the estimate by 5,000,000*l.*, and in a similar ratio for larger quantities.

All, therefore, that I can assert to be shown by my calculations is, not that the gold circulation amounts to 80,000,000*l.*, but that *it is under eighty millions, and probably lies somewhere between seventy and eighty millions.* But I shall regard 80,000,000*l.* as the safest estimate to employ in all the other calculations of this paper.

Let us compare this estimate with others lately put forward. Messrs. Graham and Wilson, in their official Report on the Paris Conference, speak of the whole gold currency as "variously "estimated at from 80,000,000*l.* to 120,000,000*l.*" The International Coinage Commission adopt the same limits, remarking that "it is impossible to ascertain the actual amount of sovereigns "and half-sovereigns in circulation, the estimates varying from "80,000,000*l.* to 120,000,000*l.*" Yet, as will be seen, my method of calculation *demonstrates* that the amount cannot exceed about 90,000,000*l.*, and shows that it probably falls below 80,000,000*l.*, the lower limit of the commission.

The late Mr. Miller, of the Bank of England, gave much attention to this subject, and is stated* to have considered that there could not have been less than 80,000,000*l.* sterling of gold in the country; but there is still the difference between our estimates, that he regarded 80,000,000*l.* as the lower limit, while I am confident that it is above the truth. Mr. Weguelin, when Governor of the Bank, stated it to be his opinion that the gold coin was between 40,000,000*l.* and 50,000,000*l.*, which is clearly too low; and Mr. Hankey, in his work on Banking, adopts a medium amount, "somewhat less than the calculation of Mr. Miller, still con- "siderably nearer to his statement than to that of Mr. Weguelin." This medium amount would thus, in my opinion, be close to the truth.

By far the most important estimate, however, which we have to consider, is that of Mr. Newmarch, who has, in one of his Appendices to "Tooke's History of Prices,"† published an excellent inquiry into this subject. Mr. Newmarch has employed, indeed, the old method of estimation; which consists in assuming, on necessarily feeble evidence, a certain amount of coin as in use in a given year, adding the issues of new coin from the Mint or the Bank, subtracting the known amounts of light gold withdrawn, and also the amount exported, according to the most probable estimate. Thus, Mr. Newmarch takes 46,000,000*l.* as the probable circulation at the close of 1846, adds 64,000,000*l.* coined and issued since, making 110,000,000*l.*, and then subtracts 25,000,000*l.* for exports to Australia, &c., 6,000,000*l.* of coin cancelled for deficiency of weight during the years 1844-56. This would give as a result 79,000,000*l.*, but he makes a further arbitrary reduction on account of unknown exports to various parts of the world, and sums up as follows:—

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* "Hankey on Banking," p. 67.

† Appendix xxii, vol. vi, p. 696.

"I am disposed to think, that if the amount of the gold coin "circulation was 46,000,000*l.* in 1844, we may suppose it to be, say "*seventy millions* in 1856 (that is to say, 50 or 60 per cent. more) "without any extreme departure from the probabilities of the case "when they are carefully examined. And considering the general "tenour of former estimates of the quantity of gold coin in circu-"lation in the United Kingdom, it does not appear that a supposi-"tion of even *seventy-five millions sterling*, as the quantity at the "close of 1856, would be unduly exaggerated."

To bring this estimate into comparison with my own, it is necessary to make allowances for the large quantities of coin since issued, as well as for the export and withdrawal of sovereigns. This is done in the following statement:—

		£
Assumed circulation at close of 1856		75,000,000
Add reimports of British coin, 1858-66		14,000,000
„ issues from mint		52,000,000
		141,000,000
Subtract light gold cancelled at bank, 500,000*l.* per annum	5,500,000	
Gold coin exported, 1857-66	41,500,000	
		47,000,000
Total		94,000,000

The above exceeds my estimate by at least 14,000,000*l.*, but a considerable part of this discrepancy may be fairly attributed to the incomplete registration of exports of gold coin at the custom house. It is thus apparent that if we took Mr. Newmarch's lower estimate of 70,000,000*l.*, there would remain but little discrepancy between that and my estimate of 80,000,000*l.* But if even my own estimate of 80,000,000*l.* is above the truth, owing to the extensive practice of melting new coin, in the same degree we must consider that Mr. Newmarch's estimate of 70,000,000*l.* is in excess of the truth. If any one could estimate the circulation correctly in the old manner, it would be Mr. Newmarch; but there are such inherent inaccuracies in all accounts of the export of coin, that we can rely upon no calculation in which they play an important part; and I have satisfied myself by working from my own maximum estimate of 80,000,000*l.* backwards to the year 1852, that there is from

20,000,000*l.* to 25,000,000*l.* of the coinage which is not to be accounted for by the custom house returns, and which must have disappeared by melting or secret exportation during that interval.

It will be interesting now to form a notion of the complete aggregate of the circulating medium of the United Kingdom, by which I mean the whole standing stock of gold, or of the immediate representatives of gold, consisting of bank notes convertible at will. By a very limited and rough investigation of the dates of shillings in circulation, I have estimated that out of a total silver coinage of 19,500,000*l.* issued since 1816, there remains in use about 14,000,000*l.* The Master of the Mint, indeed, in his evidence before the Decimal Coinage Commission in 1857, stated the quantity of silver coinage *presumed to be* in circulation at 14,167,000*l.*, since which time nearly 4,000,000*l.* of new coin has been issued, and rather more than 1,000,000*l.* has been withdrawn, which would leave 17,000,000*l.* of silver coin in use, but no allowance is made in this for the loss, destruction, and exportation of the silver coin which in the course of fifty years must have amounted to a large sum. I, therefore, think 14,000,000*l.* not an improbable amount to assign. Owing to the recent issue of the bronze coin, we know its amount to be almost exactly 1,000,000*l.* sterling in nominal value. Thus the metallic currency will consist of—

	£
Sovereigns	68,000,000
Half-sovereigns	12,000,000
Silver coin	14,000,000
Copper „	1,000,000
	95,000,000

The bullion in the Bank of England must be regarded as a portion of the circulating medium, since it is represented by notes. The whole metallic basis of our currency will then be about the present time:—

	£
Coin	95,000,000
Bullion (say)	15,000,000
	110,000,000

We ought to add such variable amount of bullion as may be in the hands of bullion brokers, refiners, and others, which may occasionally amount to some millions.

As regards paper equivalents of gold, we must take the whole issues of the United Kingdom and subtract such part as merely represents an equal quantity of coin employed in guaranteeing the notes. The coin reserves of the English banks are quite unknown, but we may suppose that the issues of English notes, amounting to 5,000,000*l.*, are backed by 1,500,000*l.* of coin. The Scotch and Irish issues may be taken at 10,000,000*l.*, with a set off of 4,500,000*l.* of coin and bullion, ascertained from the monthly official returns. The circulating medium may be stated, then, as follows:—

		£
Coin		95,000,000
Bullion		15,000,000
Notes issued by Bank of England on security		15,000,000
English bank issues	5,000,000	
Specie to be subtracted	1,500,000	
		3,500,000
Scotch and Irish issues	10,000,000	
Specie to be subtracted	4,500,000	
		5,500,000
Total		134,000,000

It appears, then, that after all the interminable discussions on the paper currency, and the vast power attributed to the Bank of England in creating or preventing oscillations of prices and credit, our currency is metallic to the extent of 110,000,000*l.*, or four-fifths (80 per cent.), and that only 24,000,000*l.*, or one-fifth part, can be considered to rest on credit.

III.—*The Age of the Gold Circulation.*

An examination of the comparative age of the sovereigns current in different parts of the country has revealed some facts of interest. These will be detected in the following table, which exhibits the average composition of the sovereign currency in a number of towns and districts, the counties of England being grouped as in the Reports of the Registrar-General. A similar table is added, showing the comparative age of the half-sovereigns in different districts; but though considerable variations are proved to exist, they do not seem to admit of any simple explanation, and my remarks will be chiefly confined to the more important case of the sovereign circulation.

Name of Town or District.	Proportion of Current Sovereigns Coined in the Period.						
	1817-19.	1820-29.	1830-39.	1840-49.	1850-59.	1860-67.	Australian.
London	·1	6·5	5·6	17·1	28·7	40·0	2·0
„ further returns	·1	6·2	6·4	16·9	28·3	40·1	2·0
Manchester	·1	4·4	4·9	13·1	29·4	46·8	1·3
„ (Mr. Ross)	·2	4·3	4·6	11·8	27·7	49·7	1·7
Birmingham	·2	6·9	6·4	17·1	28·6	39·6	1·2
Swansea	·2	8·4	7·4	15·7	28·4	37·0	2·9
Hull and Bridlington	·4	9·3	8·1	20·3	30·8	30·4	·7
Ormskirk	·1	6·8	5·7	17·2	31·1	38·2	·9
Glasgow	·3	10·6	8·0	12·1	28·3	38·0	2·7
Edinburgh	1·1	8·6	5·5	18·9	25·8	39·0	1·1
Eastern counties	·2	10·5	11·5	22·0	28·5	25·7	1·6
South-Eastern counties	·2	7·0	7·8	17·7	29·9	35·7	1·7
South-Western „	·4	7·8	8·2	17·2	32·1	32·9	1·4
South Midland „	·1	7·8	8·1	19·6	27·6	35·6	1·2
West „ „	·4	9·2	8·2	15·9	27·1	38·3	·9
North „ „	·4	9·2	7·9	16·6	26·6	38·2	1·1
Lancashire and Cheshire	·2	7·1	6·3	16·1	26·6	42·5	1·3
Yorkshire	·3	7·3	6·9	14·9	27·0	42·6	1·0
Northern counties	·2	6·4	6·6	16·5	26·6	42·7	1·0
North Wales	·2	8·5	7·5	17·4	27·5	38·1	·8
South „	·3	7·7	9·5	18·9	26·9	35·6	1·1
North Ireland	·2	5·9	6·6	17·5	31·8	36·8	1·2
South „	·2	9·3	7·3	19·9	29·8	32·2	1·3
Scotch Highlands	·2	6·6	6·9	17·2	27·5	40·7	·9
Scotch Lowlands, Bank of Scotland	·1	7·3	6·2	14·8	28·7	40·6	2·3
General average*	·2	7·4	7·0	16·9	28·6	38·3	1·6

* Calculated from the general aggregate, see table on p. 440.

Note.—Eastern Counties: Essex, Suffolk, Norfolk.

South-Eastern: Surrey, Kent, Sussex, Hants, Berks.

South-Western: Wilts, Dorset, Devon, Cornwall, Somerset.

South Midland: Middlesex, Herts, Bucks, Oxford, Northampton, Huntingdon, Bedford, Cambridge.

West Midland: Gloucester, Hereford, Salop, Stafford, Worcester, Warwick.

North Midland: Leicester, Rutland, Lincoln, Nottingham, Derby.

Northern: Durham, Northumberland, Cumberland, Westmoreland.

North Ireland: Ulster, Connaught.

South „ Leinster, Munster.

Name of Town or District.	Proportion of Current Half-Sovereigns Coined in the Period.						
	1817-19.	1820-29.	1830-39.	1840-49.	1850-59.	1860-67.	Australian.
London	·7	1·1	1·0	14·1	33·7	48·4	1·0
Manchester	·5	1·7	1·1	17·3	41·7	37·2	·5
Birmingham	·5	1·5	1·4	21·7	39·2	35·4	·3
Swansea	·6	1·9	1·9	17·8	40·5	36·4	·9
Hull and Bridlington	·7	1·4	1·3	20·3	41·9	33·9	·5
Glasgow	·5	1·4	1·8	13·1	33·7	47·7	1·8
Edinburgh	·6	1·1	·9	16·1	39·1	41·2	1·0
Eastern counties	·9	2·0	1·1	18·9	38·7	37·3	1·1
South-Eastern counties	·7	1·4	·7	17·9	38·2	39·5	1·6
South-Western "	·4	1·5	1·7	17·9	41·8	35·4	1·3
South Midland "	·4	2·2	2·8	21·2	36·6	36·5	·3
West " "	·4	1·9	1·2	19·8	43·8	32·4	·5
North " "	1·8	2·9	·8	18·4	44·3	31·0	·8
Lancashire and Cheshire	·3	1·3	1·2	20·0	44·5	32·3	·4
Yorkshire	·5	1·5	1·3	18·5	42·5	35·1	·6
Northern counties	·2	·8	1·0	17·7	37·7	40·8	1·8
North Wales	1·1	·5	1·8	20·0	47·2	28·7	·7
South "	·2	1·1	1·6	18·6	37·0	41·0	·5
North Ireland	·2	1·0	·9	20·7	44·6	32·2	·4
South "	·5	·8	1·4	21·1	47·2	28·3	·5
Scotch Lowlands	·5	1·3	1·5	17·8	38·7	39·1	1·1
" Highlands	·4	1·1	·8	13·5	43·5	39·6	1·1
General average	·5	1·3	1·1	16·3	40·1	39·6	1·1

As a general result, it may be stated that the coin is newer in the manufacturing and mining districts, and that the proportion of old coin increases as we pass into purely agricultural counties. Thus, the greatest proportion of old coin occurs in the eastern counties (Norfolk, Sussex, Essex), and in the south-eastern counties (Surrey, Kent, Sussex, Hampshire, and Berkshire), although all these counties are in the vicinity of the metropolis. Of all towns for which I have sufficient data, Manchester seems to have the newest currency; this fact being confirmed by a separate excellent enumeration of 3,358 sovereigns, procured for me by Mr. Ross, of the Manchester and Liverpool District Banking Company. It will be seen that nearly half the sovereigns current in Manchester have been coined since the beginning of 1860. Birmingham, Swansea, Hull, Ormskirk, for which I have also adequate information, do not show such extreme newness, and the coinage in Hull is considerably older than the average, although the town possesses a branch of the Bank of England. London, it will be seen, approaches very close to the general average of the kingdom, except that there is an unusual infusion of Australian coins. Nearly 3 per cent. of the sovereigns current in Swansea and the neighbourhood are from the Sydney Mint, and there is also a percentage of 2·3 per cent. in the Scotch Lowlands, as shown in the returns of the Bank of Scotland. It is remarkable that the whole of Scotland, as well as the northern counties of England, stand high as regards the proportion of new coin; but the same peculiarity does not belong to either Wales or Ireland.

A little inquiry has enabled me, with the aid of the above numbers, to detect the general course of circulation through which the gold currency seems to pass. To a great extent, indeed, the motion of the currency is altogether indiscriminate, and coins may be conveyed by travellers, by railway remittances, or in other ways, from any one place to any other. Thus is produced the general similarity shown, with few exceptions, in the returns from all places. But there will yet be almost sure to arise prevailing currents of coin passing in determinate directions, arising from the outward and inward trade of a district being conducted in different modes. Thus, a considerable quantity of gold must be carried by tourists every summer into North Wales and Scotland. In Wales it adds to the superfluity of gold, which is very marked there; in Scotland it often furnishes the branch banks with the only gold they possess, so general is the use of notes in most parts of Scotland. But the chief movement of gold coin seems to go on in the pockets of dealers in cattle, horses, farm produce, &c., &c., who avoid bank commission by carrying actual cash, and a portion of it, at least, in gold. It is certain that agricultural produce must move in general from the purely agricultural counties towards the manufacturing districts and great towns. Coin will often be carried back in payment for it, whereas the goods purchased by the agricultural counties from the manufacturing towns will usually be paid for in drafts and cheques.

In North Wales, as has been kindly explained to me by Mr. Hugh Roberts, manager of the Holyhead branch of the North and South Wales Bank, there is a constant plethora of gold coin, arising partly from tourists and temporary residents at watering places, but mainly perhaps from the farmers and dealers, who sell their cattle, horses, sheep, wool, butter, and other agricultural produce, and prefer payment in cash. The greater exports of Wales, such as slates, paving stones, ores, &c., will always be paid for in paper remittances, but then almost the whole of the imports of draperies, flour, groceries, liquors, ironmongery, coals, &c., will be paid for without specie. Even commercial travellers, when they receive cash payments from the smaller shopkeepers and dealers, will often deposit the cash in a local bank and make a remittance by a draft.

It thus falls upon the local country banks to restore the equilibrium of the currency by making frequent remittances of specie to London, or to the head offices in a neighbouring large town, to meet the drafts. But in the manufacturing towns and districts the current is in the opposite direction, as also in the neighbourhood of the Government dockyards; vast sums are here drawn in actual coin for the payment of wages, most of which, indeed, circulates in the neighbourhood, and sooner or later returns to the local banks, but the remainder passes out of the district. As the manufactured products will almost always be met by bills, drafts, and cheques, there is no compensating current of coin, and the town banks have to draw coin either from their branches, from the nearer country banks, or from the Bank of England and its branches. It is through the Bank that new coins are distributed to the public, for the branches never, in ordinary circumstances, send any good coin to Threadneedle Street,* whereas the bank, in addition to what it pays out in London, remits 2,375,000*l.* annually on the average of the years 1855-64 to the branch banks, chiefly in the dividend months.

I have entered into these particulars concerning the one-sided movement of coin, because the effect upon the character of the circulation is important. For it is obvious that somebody must return to the Bank of England, or must export a certain quantity of coin annually, and it falls to the lot of the country banks in certain districts, especially those banks which have many country branches, to return this surplus coin to London. These banks, then, would have to bear the whole loss on light gold, did they not take the very evident precaution of remitting only new heavy Victorias. In the course of these inquiries I have received overwhelming evidence that this picking and *culling* of the coinage, as it used to be called, is practised as an ordinary business transaction by all banks which need to make remittances or to pay any coin into the Bank of England. Thus, a gentleman in the eastern counties writes to me, "It is customary for our branches to pick their sur-
" plus gold for remittance to head office, which yields on an average
" about 20 per cent. of bright or heavy gold; otherwise there
" would be a charge made for short weight, arising from wear and
" tear, when taken to the Bank of England."

It will thus be apparent that there exists a regular system, whereby the older coins are continually returned into the hands of the public, and the new heavy coins alone are returned to the Bank of England, or to those who would melt or export them. The age of a coin is so far from being a reason why it should be withdrawn from circulation, that it is the very reason why it is retained in it. The public in general manage to avoid any loss from the wear of the currency, and it is only particular banks and companies and ignorant individuals who incur unjust loss. Thus, I have heard of an unfortunate person who received several hundred pounds, probably his whole property, from a London bullion broker, and, without apprehending the result, took them to the Bank of England, where the larger part were cut, as being light, and a heavy commission charged.

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* The aggregate amount thus remitted was only 298,751*l.* in the course of the ten years 1855-64, and this arose, as I am told, from peculiar circumstances.

IV.—*Proportions of Coinage Surviving.*

It is of some interest to examine closely the contents of the table, p. 440, showing the composition of the present gold circulation, in order to detect the effects which have been produced upon the coinage in the course of half a century by exportation, destruction, loss, or re-importation of coins. What we want to learn is, the degree in which the coinage of earlier years has been withdrawn from use, compared with that of later years, and this may be calculated from the fraction which the coins actually enumerated for me under the date of each year form of the total issue of coins in that year. This comparison, however, cannot be made year by year, because, until very lately, it has been the occasional practice at the Mint to use up the surplus stock of dated dies of one year in the following year; and it has even happened, during years of small coinage, that the whole of the coins issued during the year bore the date of the preceding year. These facts, for which I am indebted to the Master of the Mint, take away all accuracy from a comparison year by year; but if we aggregate several years together, taking care to commence and end with years of small coinage, we shall avoid any appreciable error. Since Mr. John Graham became Superintendent of the Coining Department of the Mint, a better system has been introduced, and a new series of dies with the proper date has been brought into use at the beginning of the new year. This practice began with the year 1864, so that it is possible some coins struck in 1863 bear the date of 1862; but it is not possible that any coined in 1865 bear the date of 1864. The only effect of these irregularities upon my estimate of the circulation, is to strengthen the probability of my assertion, that *the true amount of the gold currency lies under rather than over eighty millions.*

Aggregating the number of sovereigns and half-sovereigns shown in the table, p. 440, in the most convenient groups of years, and calculating from the same table the proportions which appear to have survived, on the assumption that the present mixed circulation of sovereigns amounts to 64,500,000*l.*, and of half-sovereigns to 12,000,000*l.*, we have the following results :—

Intervals of Years.	Proportions of Sovereigns Coined now in Use.	Intervals of Years.	Proportions of Half-Sovereigns Coined now in Use.
1817-19	·02	1817-19	·04
'20-23	·06	'20-22	·05
'24-28	·17	'23-29	·08
'29-31	·26	'30-39	·19
'32-33	·29	'40-45	·41
'35-39	·29	'46-50	·45
'40-45	·36	'51-57	·65
'46-50	·33	'58-62	·95
'51-54	·34	'63-64	(1·00)*
'55-58	·36		
'59-62	·52		
'63-64	·77		

* Assumed.

It appears that of the sovereigns coined in 1817-19, not more than one-fiftieth part remain in circulation, and the proportion rises until between the years 1840 and 1858 it is about one-third. When exhibited graphically the numbers produce two curious curves, which are at once similar and different. In both cases there is an elevation in the period (1840-45), arising probably from the recoinage of the years 1841-43, when 12,000,000 or 14,000,000 sterling of gold coins were called in and distributed again in an unusual manner, so that more than a common proportion became fixed in the circulation. The most important peculiarity of these numbers, however, is the very small increase which takes place in the proportion of sovereigns preserved between the years 1832 and 1854. This indicates that there is a residuum of coin which is no longer subject to be exported or withdrawn like the rest of the circulation. For if the portions of coins exported were taken indifferently from the mixed mass of coin, we can readily see that the curve would have the form arising from a geometrical series, and would tend constantly upwards, without any contrary bends.* The curve of half-sovereigns, were it not for the interruptions in 1840-45, would represent pretty nearly this normal form, and the deviation of the sovereign curve indicates the care with which exporters and melters of sovereigns have avoided taking any old or light coins.

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* Suppose a be the quantity of coin issued in any given year, and that $\frac{1}{m}$th part of the circulation be indifferently withdrawn every year; then at the end of n years, the quantity a will evidently be reduced to $a \,.\left(1 - \frac{1}{m}\right)^{n}.$

V.—*On the Deficiency of Weight of the Gold Coinage.*

It appeared likely that the accurate information I had acquired, concerning the age of the gold currency, would become more valuable if joined with a determination of the average rate of wear of the coins. For there was reason to suppose that the wear of a sovereign would be approximately uniform and proportional to its age, so that the average age of a number of coins would become a sure indication of their amount of depreciation. Coins of different age, being indifferently used in the ordinary course of circulation, would suffer equal friction, so that any difference in the amount rubbed away could only arise from the different character of the metal or from the varying prominence of the impression. It might, perhaps, have been expected that sharp new coins would wear more rapidly than those old coins which have already been rendered smooth by wear; but my own weighings, as afterwards described, do not give much evidence of this, and the elaborate experiments of Cavendish and Hatchett seem to establish the contrary. It is true that when Mr. Hatchett rubbed stamped and unstamped pieces of gold against each other, with sand or other hard powder between, the stamped pieces were much the more worn, but when he caused a number of such pieces to be shaken against each other, without any powder, in a revolving box, during 11,880 revolutions, no difference whatever was observed in the loss of weight of smooth and stamped pieces.* It is the latter experiment which seems to me to represent most truly the kind of friction to which coin are most exposed in the purse, the pocket, the till, or the bullion scales.

To determine the wear of the currency, I thought that a very accurate weighing of a moderate number of coins of different ages, would be better than the ordinary rough weighings of larger quantities of coin as conducted in bank scales. I have, therefore, at several times during the present year, drawn gold from the ordinary circulation at Manchester, amounting in all to 434 sovereigns and 178 half-sovereigns, and after a careful cleansing, have weighed them upon a delicate chemical balance, put at my disposal for the purpose by Dr. Roscoe. All the half-sovereigns, and 280 of the sovereigns were weighed individually.

The sovereigns of 1860-67 are, with a single exception, of legal currency, but lie almost entirely between the standard weight 123·274 grains (7·9879 grms.) and the lowest weight of legal currency 122·5 grains (7·9379 grms.), the average being 123·04 grains (7·9728 grms.); of the sovereigns of 1850-59, only one was up to the correct standard, and many were not a legal tender. Even the average weight of those coined in 1840-49 fell below the legal limit, and coins of greater age descend, on the average, in proportion to age, but with greater individual divergencies. Thus, while the sovereigns of 1817-29 are, on an average, more than one grain below the legal limit, one of them descends to 119½ grains.

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* "Philosophical Transactions" (1803), vol. xciii, p. 172.

The following table shows the average rate of wear of sovereigns of different ages in decennial groups. The deficiency is calculated from the average weight of sovereigns issued from the mint, as determined by a weighing of 1,000 new sovereigns executed at the Bank of England in March, 1868, at the desire of the International Coinage Commission (Report, p. 94). Thus, while the standard weight is 123·274 grains, the weight of those issued is a small fraction less, namely, 123·260 grains.

Years of Issue.	Number of Sovereigns Weighed.	Average Weight of the Sovereigns.	Deficiency from Mint Weight.	Average Date of Coinage.	Average Annual Loss of Weight.
		Grains.	Grains.		Grains.
1817–29	31	121·40	1·86	1824·7	·043
'30–39	22	121·92	1·34	'34·3	·040
'40–49	44	122·16	1·10	'45·8	·051
'50–59	129	122·72	·54	'54·6	·042
'60–67	208	123·04	·22	'63·1	·050
Mint weight...	—	123·26	—	('67·5)	—

In order to ascertain the complete average rate of wear of the whole, I have calculated the average weight of the sovereigns to be 7·9515 grms. (122·71 grains), and the average date of issue to be 1854·6. The weight as issued from the mint being 7·9871 grms. (123·26 grains), we have a deficiency of ·0356 grms. (·55 grain), caused by 12·9 years' wear, counting up to the middle of the year 1867, and ·0356 + 12·9 = ·00276 grms. (·043 grain), the required result.

As the coins when issued weigh 7·9871 grms., and they cease to be legal tender when they fall below 7·9379 grms. (122·5 grains), it is easily calculated that just about eighteen years' wear will reduce a sovereign below its point of legal currency. Of course it is not meant that every sovereign will be light after eighteen years' wear, for some are coined heavier than others, or undergo less wear from accidental circumstances; but these will be balanced by others coined lighter, or subject to more severe wear. But it would be hard to name a subject in which reasoning by averages may be more safely trusted than the present, because the coinage consists of an immense number of pieces which are constantly circulating through every part of the country and in every kind of business. A little reflection will show, I think, that though the age of any individual coin is but a poor criterion of its weight, that the age of 1,000,000, or 1,000, or even 100 coins drawn from the ordinary mixture in circulation, must be a very sure criterion, as it is in the highest degree unlikely that even in 100 coins, the accidental peculiarities of the history of any of those coins should influence appreciably the general average.

My results are strongly corroborated by experiments made at the Mint in the year 1833, by weighing parcels of 300 sovereigns, coined in each of the years 1817, 1821, 1825, and 1829.* The average annual wear calculated from these data is as follows:—

Sovereigns of 1817	·034	grain per annum.
„ '21	·047	„
„ '25	·051	„
„ '29	·054	„

The average of the whole is ·047 grain per annum.

The specimen of sovereigns for 1817 was evidently not properly chosen, as the wear was actually less for sixteen years than in the coins of 1821 for twelve years.

I can assume, therefore, with great confidence, that the proportion of sovereigns in circulation of a greater age than eighteen years, is equivalent to the proportion of illegally light sovereigns; and as the coinage of the years 1848-50 were not large, it would influence the result but little if we took twenty years instead of eighteen. Assuming, then, that sovereigns coined since the beginning of 1850 are of legal weight and the others light, we readily determine, from the table on p. 440, that 31·5 *per cent. of the whole of the sovereigns in the kingdom are no longer of legal currency.*

From the table on p. 448, we can also readily ascertain the varying proportion of light sovereigns in different parts of the country, as in the following statement—arranged in order of magnitude:—

	Per Cent.		Per Cent.
Eastern counties	44	North Scotland	31
Hull	38	Birmingham	31
South Wales	36	Glasgow	31
„ Midland counties	36	North Ireland	30
Edinburgh	34	Lancashire and Cheshire	30
South-western counties	34	Ormskirk	30
North Wales	34	Northern counties	30
West Midland	44	London	29
North „	34	Yorkshire	29
South-eastern counties	33	South Scotland	28
Swansea	32	Manchester	22
General average	31·5	„ second enumeration	21

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* See G. R. Porter's "Tables of Revenue, &c., of the United Kingdom," part iii (1834), p. 16. Similar experiments made in 1826 give a like result. See "Jacob on the Precious Metals," vol. ii, p. 380.

It would seem that the proportion of light gold is now as great or greater than at previous times when a recoinage was being carried out or contemplated. Thus in the years 1840 and 1841, when light gold was freely received by the bank, for recoinage at the public expense, the proportion did not rise above 25 or 28 per cent.[*] Of the old guineas current in 1807, 31·4 per cent. were under the least current weight, according to one experiment, and 46 per cent. according to another;[†] but the proportion of light half-guineas was greater, namely, 77 per cent.

The preceding statements concerning the lightness of the coin, are of a somewhat startling character, and I might hesitate to put them forward had I not strong collateral evidence of their trustworthiness. One very convincing fact consists in the extraordinary difference of age between the sovereigns in the Bank of England and those outside it. Of this I am enabled to judge by a return of 1,000 sovereigns, carefully prepared for me by Mr. Robinson, the Principal of the Issue Department, at the desire of the Governor. The composition of this return is shown below, the results of a like return from the branches of the London and Westminster Bank being given for the sake of comparison:—

	Bank of England.	London and Westminster Bank.
	Per cnt.	Per cnt.
Coined in 1817–19	0·0	·2
„ '20–29	·4	6·9
„ '30–39	·2	7·7
„ '40–49	2·3	18·7
„ '50–59	23·5	30·3
„ '60–67	69·1	33·6
„ Australia	4·5	2·6
	100·0	100·0

The sovereigns enumerated for me at the Bank, were intentionally selected by Mr. Robinson as a fair specimen, and were taken, as I presume, from coin paid in by the public and purged of light coin by the weighing machines. Only 2·9 per cent. of coins older than 1850 remain in such a sample, this small proportion consisting, no doubt, of those coins which were originally rather heavy, or have by some accident escaped the usual wear. The fact that some of the older coins are still of legal weight, does not prevent the age from serving as a criterion of *average* weight, because such old and heavy coins are balanced by an equivalent of new coins which by some accident are light. My own weighings show that 10 per cent. of the sovereigns of 1850-67 are below the limit of legal currency.

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[*] Newmarch, "Tooke's History of Prices," vol. vi, p. 701.

[†] "Jacob on Precious Metals," vol. ii, p. 382.

For sake of comparison, I have placed alongside the Bank of England return, the results of an enumeration of 1,600 sovereigns at all the branches of the London and Westminster Bank, which was kindly sent to me by the general manager: the reader cannot fail to notice the extraordinary difference.

I have calculated that the average age of the sovereigns in the Bank of England (Threadneedle Street), is 7·14 years, whereas the average age of the whole circulation of sovereigns in the United Kingdom is 15·35 years, or more than twice as much.

Almost as great a contrast exists between the coinage in the Branch Banks of England, so far as I can judge from returns with which I have been favoured by the agents at Newcastle and Plymouth.

Proportional Number of Coins per Cent. of Different Dates.

Interval of Years.	Plymouth Branch of the Bank of England.	Average of South-Western Counties.	Newcastle Branch of Bank of England.	Average of Northern Counties.
1817–19	0·0	·4	0·0	·2
'20–29	0·0	7·8	0·0	6·4
'30–39	2·0	8·2	0·0	6·6
'40–49	13·0	17·2	5·0	16·5
'50–59	35·0	32·1	38·5	26·6
'60–67	49·0	32·9	55·5	42·7
Australian	1·0	1·4	1·0	1·0
	100·0	100·0	100·0	100·0

I have additional confirmatory evidence of the quantity of light coin in circulation, derived from notes appended to the returns of sovereigns by the bankers or other gentlemen sending them. The following is a brief statement of the percentage of light coin named as circulating in the respective places:—

	Sovereigns.	Half-Sovereigns.
	Per cnt.	Per cnt.
*Ballyshannon	25	50
Birkenhead	63	66
Buckingham	57	48
Dartford	65	48
Dublin	47	48
*Dundalk	25	—
* „	20	—
Farnham	56	74
*Halifax	25	—
Lampeter	15	87
Leominster	29	58
Liskeard	38	30
*London	62	70
„	66	88
*Liverpool	50	50
Nenagh	23	49
*Norwich	70	70
*Ramsgate	—	66
Wells	75	94

In the cases marked with an asterisk only a rough estimate has been given, but in all other cases the percentage of light coin was determined by weighing with the usual bank scales. These statements show a serious depreciation of the currency in many places where old gold happens to have accumulated. The average percentage of light coins would be, according to the above, about 45 per cent. of sovereigns, and 62 per cent. of half-sovereigns; but, though these statements seem to show that my estimate is not overdrawn they evidently cannot be considered as furnishing a general average.

Strong remarks on the lightness of the coinage were added by many gentlemen. Thus, the manager of a bank at Birkenhead says: "I have taken the two hundred of each sort above enume-" rated out of a considerable quantity which was paid in by various " customers, and think they will give a very fair average of our " coinage here. I subjoin the numbers of light and heavy gold " respectively, hoping that something may be done to call attention " and rectify the very unsatisfactory nature of our circulating " medium." The result is stated in the table above.

From Cambridge I have the remark that, "the half-sovereign " coinage is much worse than the sovereign; two or three years " back it being found on trial that not more than 10 per cent. of " this circulation was weight."

Halifax. "Half-sovereigns are extremely light and many should " be called in."

Rochdale. "The greater portion of the gold in circulation "here is light."

Ramsgate. "Few sovereigns after two or three years circulation are now safe to send into the Bank of England without "careful weighing."

Saint Helens. "Gold generally light."

It is right to add that, among a number of other remarks, too numerous to give at length, were five or six expressing more or less satisfaction with the coinage.

The enumerations of coins which I have received from Ireland, present far wider differences than those from Great Britain. This doubtless arises from the practice of weighing the gold coin and charging a commission on light gold being strictly maintained in some Irish banks, although most of the banks have abandoned any such precaution. Two of my returns exhibit the following extraordinary contrast:—

	Carlow.	Bandon.
Sovereigns of 1817–19	—	—
" '20–29	—	37
" '30–39	—	25
" '40–49	14	10
" '50–59	42	13
" '60–67	44	15
Australian coins	—	—
	100	100

The correspondent who kindly furnished me with the second return has not been able to give me any decisive explanation of its exceptional character, but suggests that it may arise from some old deposits of gold coin in the banks having been brought forth during the run on the banks in the neighbourhood of Cork, occasioned by the Fenian alarm.

There is no difficulty now in calculating the actual deficiency of weight and value of the currency. One mode is by multiplying 15·35 years the average age of the sovereigns, by ·00276 grms. (·043 grain), the ascertained average annual wear. *The average deficiency of each sovereign therefore is* ·0424 grm. (two-thirds of a grain, or ·66 grain), *amounting to* ·53 *per cent., or quite* 10*s. in* 100*l.* On the total assumed quantity of 64,500,000 sovereigns, this deficiency would be 330,000*l.* The whole of this, however, would be covered by the allowance for wear of ·63 per cent. (·050 grm., or ·774 grain), if it were spread evenly over the currency. To detect the illegal deficiency, we must consider the old and new coins apart. In a sum of 100,000 of the sovereigns as in ordinary circulation, the deficiency will be as follows:—

Years of Coinage.	Number of Sovereigns in 100,000.	Average Deficiency of each Piece.	Value of Deficiency in £100,000.
		Grains.	£
1817–19	207	1·874	116
'20–29	7,402		
'30–39	6,979	1·354	77
'40–49	16,935	·829	114
'50–59	28,612	·554	128
'60–67	38,246	·234	71
Australian	1,619	·214	2
	100,000	—	508

The whole of the deficiency upon sovereigns coined since the beginning of 1850 may be considered as covered by the allowance of ·774 grain for wear; so that only the deficiency on earlier coins, amounting to 307*l.* in 100,000*l.*, or nearly one-third per cent., would require to be made good in a recoinage. On a total quantity of 64,500,000 this deficiency would be almost exactly 200,000*l.*

The weighings of 178 half-sovereigns, drawn from the ordinary circulation at Manchester, give the following average wear:—

Years of Issue.	Number of Half-Sovereigns Weighed.	Average Weight of Half-Sovereigns.	Deficiency of Weight.	Average Date of Coinage.	Average Annual Loss of Weight.
		Grains.	Grains.		Grains.
1817–49	32	60·199	1·468	1844·5	·064
'50–59	86	60·857	·780	'55·7	·066
'60–67	60	61·298	·339	'63·2	·079

The wear thus indicated is considerably greater than that ascertained in the Mint experiments of 1833, which was as follows:—

Half-sovereigns of 1817 wear ·032 grain per annum.
„ '21 „ ·036 „
„ '25 „ ·052 „
„ '29 „ ·048 „

I cannot account for the difference, unless it is owing to the fact noticed by Mr. Jacob,* that the gold money was not properly in circulation between 1817 and 1821. Not only does the worn appearance of old half-sovereigns now in use lead us to suppose that they have suffered much loss, but the fact that they offer more than three-quarters of the surface of sovereigns, and are much more actively used in circulation, would lead us to expect a rapid wear.

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* "Precious Metals," vol. ii, p. 172.

Taking the average annual wear of the half-sovereign at ·069 grains, we find the length of time during which it will remain of full weight as follows :—

	Grains.	Grammes.
Standard weight of half-sovereigns............	61·637	3·9938
Least current „ „	61·125	3·9609
	·512	·0329

Hence $\frac{\cdot 512}{\cdot 069}$ = 7½ years.

As we cannot be sure that the half-sovereigns get into circulation for the first year or two of their existence, it will be well to take ten years so as to be on the safe side, and say that the number of light half-sovereigns is represented by the number coined before 1858. From the table on p. 440 we then learn that the proportion of light half-sovereigns is about 47 per cent. on the average of the whole country. On a total quantity of 12,000,000*l*. of half-sovereigns, this will amount to just 5⅔ millions sterling, and the annual cost of the wear will be at least 13,000*l*., being about three times as great, in proportion to the value of the coin, as in the case of sovereigns.

The aggregate deficiency of value of the half-sovereign circulation may be calculated as follows :—

Years of Issue.	Number of Half-Sovereigns in 100,000.	Average Deficiency of each Piece.	Value of Deficiency in £100,000.
		Grains.	£
1817–49	19,270	1·468	458
'50–57	28,080	·780	356
'58–67	51,570	·339	284
Australian	1,080	—	—
	100,000	—	1,098

Thus there is a deficiency in the half-sovereign circulation of just 1·1 per cent. in value; but as ·83 per cent. is covered by the allowance for wear, there remains an average illegal deficiency of ·27, or quite 5*s*. in 100*l*. But if we pay regard only to the coin which is no longer legally current, the deficiency required to be made good in a recoinage amounts to 814*l*. for each 100,000*l*. of the present half-sovereign circulation, or in an assumed total quantity of 12,000,000*l*., to about 100,000*l*.

The recoinage of the whole of the light gold in circulation at present may now be calculated as follows:—

	Value.	Number of Pieces.	Deficiency in Value.
	£		£
Sovereigns	20,300,000	20,300,000	200,000
Half-sovereigns	5,700,000	11,400,000	100,000
	26,000,000	31,700,000	300,000

The recoinage now required is fully twice as great as that carried out in 1841-43, when 12,000,000*l.* of coin were withdrawn at the cost of the State. The Mint authorities now estimate the cost of striking a large number of sovereigns at about a third of a penny (·311 penny) each,* so that we can estimate the complete cost of the recoinage now required as in the following statement:—

Cost of Recoining 31½ *Millions of Gold Coins.*

	£
To make up deficiency of weight	300,000
„ fineness	7,000
Cost of coinage (Mint expenses)	41,000
Total cost	348,000

The second item arises from the assaying of the gold having been inaccurately performed previous to the year 1850, so that the older coins are not now reported as of standard fineness.

The total cost to the nation of the metallic instrument of circulation can now be estimated with sufficient accuracy, and is as follows:—

	£
Annual wear of 64,500,000 sovereigns	22,000
„ 24,000,000 half-sovereigns	13,000
Expenses of the Mint, including wear of silver coin	42,000
	77,000
Interest on 95,000,000 of gold, silver, and copper coin at 3 per cent.	2,850,000
	2,927,000

The only source of cost not included in this estimate arises from the accidental loss of coins, the amount of which is quite unknown. The cost of maintaining the currency is seen to be quite inconsiderable, compared with the loss of interest upon it.

Should a recoinage be carried out, it is much to be desired that some improvement should be made in the design of the sovereign. For, although only two or three gold coins have been mentioned as undecipherable in date, I have myself found it almost impossible to distinguish 3, and 5, and 0, and 6 upon many sovereigns of no great age. It is to a mistaken reading of numbers that I attribute a small number of coins enumerated in the table, p. 440, in years when no such coins were issued from the mint. These mistakes were quite insufficient to affect the accuracy of my deductions, but they could hardly have happened had the gold coin borne old-faced figures somewhat similar to those upon the new copper coin.

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* "Report of the International Coinage Commission," p. 94.

BRITISH ASSOCIATION, 1868.

THIRTY-EIGHTH *Meeting of the* BRITISH ASSOCIATION *for the Advancement of Science, held at* NORWICH, 19*th*—26*th August*, 1868.

Section F.—*Economic Science and Statistics.*

President.—**SAMUEL BROWN, President of the Institute of Actuaries.**

Vice-Presidents.—**Sir Willoughby Jones, Bart.; Sir Samuel Bignold, Knt.; Sir John Bowring, F.R.S.; Dr. Farr, F.R.S.; W. Newmarch, F.R.S.; Professor J. E. Thorold Rogers, M.A.; R. J. H. Harvey, M.P.; James Heywood, M.A., F.R.S.**

Secretaries.—**Professor Leone Levi, F.S.A.; Edmund Macrory, M.A.; Rev. W. Cufaude Davie, M.A.**

Committee.—**H. G. Bohn, F.L.S., F.R.G.S.; W. Cann; Rev. W. H. Channing; J. J. Colman (Mayor of Norwich); H. Dircks, F.R.S.E.; F. P. Fellowes, F.S.A., F.S.S.; J. G. Fitch, H.M.I.S.; Rev. Canon Girdlestone, M.A.; Rev. G. Gould; W. D. Harding, C.E.; Dr. Hodgson; E. Howes, M.A., M.P.; Dr. R. J. Mann; Rev. F. Meyrick, M.A., H.M.I.S.; J. Newbegin; C. S. Read, M.P.; Rev. Il Padre Secchi; Dr. Storrar; R. Wilkinson.**

The following Papers were read in the Section:—

Thursday, 20*th August.*

The President's Opening Address.

Frank P. Fellows.—On Mr. Seely's Proposed Form of Admiralty Estimates' Accounts as recommended by the Naval Committee of the House of Commons.

Henry Jeula.—A Brief Statement of the Recent Progress and Present Aspect of Statistical Inquiry in relation to Shipping Casualties.

Professor Leone Levi.—On the Progress of Learned Societies, Illustrative of the Advancement of Science in the United Kingdom during the last Thirty Years.

Friday, 21st August.

Report of the Metric Committee, and Recommendation thereon.

Sir W. Jones, Bart.—On the Arterial Drainage of Norfolk.

W. D. Harding.—On the Fen Drainage of Norfolk.

Rev. Canon Girdlestone.—The Condition of the Agricultural Labourer, specially in the West of England.

Saturday, 22nd August.

Sir John Bowring, F.R.S.—On the Moral and Pecuniary Results of Prison Labour.

F. S. Corrance, M.P.—On the Social Condition of the Labouring Classes.

Monday, 24th August.

Report of the Committee on Uniformity of Monies, Weights, and Measures.

Professor Leone Levi.—On the Present State of the Question of International Coinage.

G. Johnstone Stoney.—On the Natural System of Coinage.

C. S. Read, M.P.—On the Recent Improvements in Norfolk Farming.

W. Smith, M.R.C.V.S.—Statistics of the Progress and Extermination of the Cattle Plague in Norfolk.

G. Fitch, M.A., Assistant Commissioner to the School Inquiry Commission.—Educational Endowments.

Tuesday, 25th August.

Miss Becker.—On some Supposed Difference in the Minds of Men and Women with Regard to Educational Necessities.

Joseph Payne.—On the Relation between Learning and Teaching.

Horace Mann.—Some Statistics Relating to the Civil Service.

James Heywood, M.A., F.R.S.—Sanitary State of the Indians in the New England Company's Settlement of Kanyageh, Canada.

Hyde Clarke.—On the Progress of Turkey.

F. G. P. Neison, jun.—The Influence of Occupation on Health.

PROCEEDINGS OF THE STATISTICAL SOCIETY.

Session 1867-68.

First Ordinary Meeting, Tuesday, 19th November, 1867.

Dr. Farr, F.R.S., Vice-President, in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

Jeremiah James Colman, Esq.
Victoriano Carrias, Esq.
Spencer Percival Butler, Esq.

The following Paper was read:—

"On Public Instruction in Turkey." By Mr. Hyde Clarke.

Second Ordinary Meeting, Tuesday, 17th December, 1867.

Dr. Farr, F.R.S., Vice-President, in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

Thomas Turner, Esq.
Albert Mirabeau Dowleans, Esq.
Frederick William Haddon, Esq.
Frank McClean, Esq.
Robert Lindsley Pratt, Esq.
William Mead Corner, Esq.

The following Paper was read:—

"On the Form of Government and Educational System of the "University of Cambridge." By Mr. James Heywood, M.A., F.R.S.

Mr. Samuel Brown read a short notice of the International Statistical Congress, held at Florence in September last.

Third Ordinary Meeting, Tuesday, 21st January, 1868.

Colonel W. H. Sykes, M.P., in the Chair.

The following Gentleman was elected a Fellow of the Society, viz.:—

Philip Vanderbyl, Esq., M.P.

The following Paper was read:—

"On National Income." By Mr. R. Dudley Baxter, M.A.

Fourth Ordinary Meeting, Tuesday, 18th February, 1868.

The Right Hon. W. E. Gladstone, M.P., President, in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

Captain Barber.
Joseph J. Cohen de Lissa, Esq.
Yorick James Murrow, Esq.
Peter Kennedy, Esq.

The following Papers were read:—

"On Trade with the Coloured Races of Africa." By Mr. A. Hamilton.

"On English and French Budgets." By Major-General Balfour, C.B.

Fifth Ordinary Meeting, Tuesday, 17*th March,* 1868.

Colonel W. H. Sykes, M.P., in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

James Thomson, Esq.
Rowland Williams, Esq.
James Macdonald, Esq.

The following Paper was read:—

"On the Agricultural Statistics of the United Kingdom." By Mr. James Caird.

Sixth Ordinary Meeting, Tuesday, 21*st April,* 1868.

Dr. Guy, F.R.S., in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

The Right Hon. G. Göschen, M.P.
Thomas D. Chipchase, Esq.
Bernhard Samuelson, Esq., M.P.
William Hope, Esq.
Carl Mathaei, Esq.
D. Harris, Esq.

The following Paper was read:—

"On the Population Statistics of Europe compared." By Mr. Samuel Brown.

Seventh Ordinary Meeting, Tuesday, 19*th May,* 1868.

James Heywood, Esq., M.A., F.R.S., Vice-President, in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

Henry Lake, Esq.
William Fowler, Esq.
James White, Esq., M.P.
Joseph Herbert Tritton, Esq.
Roger Sinclair Aytoun, Esq., M.P.
James Moses Filder, Esq.
Edward Clifton Griffith, Esq.

The following Paper was read:—

"On the Finances of the United States, 1861-67." By Mr. L. H. Courtney.

Eighth Ordinary Meeting, Tuesday, 16*th June,* 1868.

Dr. Farr, F.R.S., in the Chair.

The following Gentlemen were elected Fellows of the Society, viz.:—

Albert John Venn, Esq.
H. W. J. Wood, Esq.
William R. Price, Esq.

The following Paper was read:—

"On the Increase of Material Prosperity, and of Moral Agencies, compared with the State of Crime and Pauperism." By Mr. J. H. Elliott.

MISCELLANEA.

CONTENTS:

	PAGE		PAGE
I.—The Harvest of 1868	469	III.—The Railways of India	475
II.—Trades Unions and London Shipping	471	IV.—Post Office Annuities and Assurances	481

I.—*The Harvest of* 1868.

A LETTER reprinted below, which Mr. Caird recently addressed to the Editor of the *Times*, offers an excellent illustration of the value of our agricultural statistics:—

"The publication of the agricultural returns of the United Kingdom affords the basis for an estimate of the yield of the last crop, which, with your permission, I venture to submit for consideration.

"The yield of wheat has been ascertained in various parts of the country, and, with the exception of that grown on shallow gravels and light sand, it is pronounced nearly equal to the fine crop of 1864, but not so good as the abundant crop of 1863. It is nearly as much above an average, as the crop of 1867 was below it. My own inquiry and observation, lead me to the conclusion that thirty-two bushels, or four quarters an acre, may be safely reckoned as the yield of this year, which is five bushels an acre above the yearly average yield of the United Kingdom.

"So far we did not need the agricultural returns to help to this conclusion. But without them we could not have known that upwards of 300,000 acres had been added to the breadth under wheat, and that thus, beyond the bountiful yield of each acre, we have this year secured an addition of one-twelfth to the acreage, which is the same thing as an additional month's home supply. The money value of this knowledge may be difficult to estimate. If we reckon its influence on price at but 1*s*. a quarter on the total consumption of the country, the cost of obtaining these returns will be repaid to the public one hundredfold.

"At four quarters an acre the wheat crop will give 15,700,000 quarters, and if the annual consumption is taken at 20,500,000 quarters, the foreign imports absolutely required will not exceed 5,000,000 quarters. But as we began one month earlier than usual on the present crop, and as the old stocks were exhausted, we ought not to reckon on less than an additional month's consumption of foreign corn to make the country safe to next harvest. This will increase our demand for foreign wheat and flour, within the harvest year, to a total of 6,500,000 quarters. The importations of the first two months of the harvest year—August and September last—having been very nearly on this scale, it would seem that the present range of price in this country is not more than is required to draw from abroad the necessary supply.

"The cost of imported wheat in the current year will be about 15,500,000*l.* Last year it was 31,000,000*l.* The highest average price of the year was reached in May, 73*s.* 11*d.*, from which it has fallen in four months to 53*s.* 7*d.*, or rather over 20*s.* a quarter. But this saving of 15,500,000*l.* in the price we shall have to pay for foreign wheat, will be considerably diminished by the deficiency in the barley and oat crop.

"These I reckon to be at least one-fifth below an average crop, and there being likewise a deficiency in the acreage, the ordinary money value of the barley and oat crops of the United Kingdom, will this year be probably 10,000,000*l.* under an average. Of this rather over one-half applies to the oat crop, a large portion of which being consumed on the farm, the loss will fall more heavily on the farmer than on the public.

"The hay and green crops are also greatly deficient. It would be very difficult to place a money estimate on this deficiency, but the loss of these, which are the basis of stock husbandry and productive corn crops, will seriously trench upon farming capital. A large import of cheap feeding stuffs will be required, for which preparations are already being made in America, where in the valley of the Mississippi the growing crop of Indian corn is said to be unprecedented in abundance. A system of transport has been arranged by the Illinois Central Railroad for the shipment from Cairo to New Orleans, of 10,000 quarters daily, in the expectation of orders from Europe at New Orleans to take off this supply.

"The potato crop remains to be considered. There is an increase upon it of 80,000 acres—somewhat more than one-twentieth of the whole extent. It will prove an average crop, the second growth, which began after the rains in July and August, having added greatly to the bulk. Both first and second growth seem to be sound, but, as the first crop has ripened earlier than the second, there will be some risk in storing, to prevent which the potatoes should be left as long as they safely can be, to ripen fully before being taken from the ground. In Surrey, on good land, I have found the proportion of second growth to first as four tons to five, the additional four tons being due to the fertilising action of the rain falling on a soil in the condition of a hotbed. In the northern parts of the country and in Ireland, where the first crop did not ripen so early, the proportion of second growth will doubtless be less. As yet, there is very little disease, and if the late crop can be safely stored, there is a fair prospect of a plentiful supply of this wholesome article of food, a matter now of some importance in England, and of the highest value to Ireland. It has been thought that the second growth might seriously injure the edible and nutritive quality of the first, from which it springs. On trial, I have found this not to be so. The root of the first growth proved the driest and most mealy potato, the second growth from the same root—nearly the same in size—being equally sound, but more waxy and less ripe.

"On the whole, the harvest of 1868 will prove a productive one of wheat and potatoes—the main food of the bulk of the population, which will thus be supplied at a moderate price. But there will be a great deficiency in the food of live stock, and a very serious loss in that branch of agricultural industry.

"An abstract of the returns for the United Kingdom was this year issued on the 20th of September. When we consider the novelty of the inquiry, the objections in some quarters still entertained to it, and the mass of returns that must be obtained, corrected, arranged, and tabulated before such an abstract can be prepared, we must feel that the highest credit is due to the Board of Trade and the Inland Revenue for their management of this interesting and important subject."

II.—*Trades Unions and London Shipping.*

THE following suggestive article recently appeared in the *Economist*:—

"The Trades' Union Commissioners have just issued a ninth report, which is mostly devoted to the recent state of shipbuilding on the Thames, the consequent distress, and the effect of the unions upon both. Both shipbuilders and working men were examined, and though other matters are still dubious, two points were distinctly brought out which, on account of their general importance, ought to be considered.

"The rate of wages for shipwrights was fixed in the year 1825 by what is called the London book, and fixed with sole reference to a very fine class of work—the repair of wooden ships of high class and great durability. In the year 1825 a very large part of the shipping of England consisted of British-built ships of the best class, and the repairing of these was a work intrinsically costly, requiring good labour, and able to pay good wages; it was like mending a jewel—you wanted to preserve as long as you could something very valuable. This work did not, it is true, regulate the building of ships expressly; but it appears to have formed a kind of standard by which the shipwrights engaged in building regulated their demands; and what is even more important, ship repairing is a great deal more profitable than shipbuilding, and therefore the 'book' which ruled in ship mending settled, in fact, the most important component in the capitalist's profit. The London book was a code of high rates for fine work, incidentally and practically regulating all other work.

"But during the last few years the whole tendency in the wood shipping trade, as in so many other trades, has been to substitute a lower-class article, and a less durable article, for the old high-class article. The tendency of modern trade is to make cheap things to last a short time, rather than dear things to last a long time, and, in the shipbuilding trade especially, the colonial ships, made of less lasting Canadian wood, have altogether changed the practice. A wood ship now does not last as long or nearly as long as it did twenty years ago. The work is inferior, work done to last a shorter period. The repairing trade is even more altered; it is now the repair of an article far less durable and costly; it does not, speaking generally and as a rule, require such fine work, nor can it afford to pay as high wages. Like so many others the business is more rough and ready; it is quicker, cheaper, and less elaborate.

"But the 'London' book has been immovable; it kept in the new rapid trade the same rules which were made for the old slow trade; it required for the repair of the new short-lived article the same rate of wages as for the repair of the old and long-lived one; it charged for inferior work, suited to modern uses, the same price as it used to charge for the superior work which alone was wanted formerly. The effect is clearly stated by Mr. R. Steele, a Greenock shipbuilder:—

"'17,426. (Chairman). Have you at all compared the rate of wages in Greenock and the rate of wages in the part of the Thames where shipbuilding is carried on?—Our rate would be, I think, fully 30 per cent. below the Thames.

"'17,427. And is that 30 per cent. lower made up by the purchasing power at Greenock over the purchasing power at Blackwall; that is to say, taking house rent, provisions, and other matters, do the higher prices of London swallow up the higher wages, so that the man's living is nearly the same in either case?—I really do not know how that is.

"'17,428. You can only say that there is 30 per cent. difference in money?—Yes, in money.'

"The consequence is that no one repairs an inferior class ship in London who can conveniently repair her elsewhere. In many cases ships are taken round to other ports to be repaired, and classed more cheaply; and in many more cases, the voyages of ships are arranged so that they come home to, and be repaired at, ports where the charges are less prodigious. And the wood-building trade of London is more and more confined to the building of the most expensive class of durable ships—a kind of trade the proportion of which to the rest of the trade is diminishing year by year.

"This restriction of the trade of London appears to be due entirely to the 'unions.' The 'union' fixed the 'book' in 1825, and it has been impossible to alter it since. It is a tariff-treaty of great complexity, and any master who attempted to alter bits of it, and to adapt them to modern changes, would be at once resisted by the 'union,' and probably would not be much supported by other masters. 'A small change,' they would say, 'is not worth a great row,' and yet it is only by a series of small changes that a book of many prices for many different things ought to be altered. 'The rates,' says Mr. Wigram, 'were this sort of thing. Taking out and putting in a plank of a certain thickness was paid so much a foot in length; taking out timber so much a foot cube.' Such a 'book' is an iron band upon a trade, for it is not worth a great contest to alter single details, so the whole stays on till its aggregate pressure has driven trade elsewhere.

"It generally happens that a place which is 'rough and ready,' in one great class of articles, is 'rough and ready,' too, in any new kind of analogous articles, and that a place which is suited only to an elaborate sort of the old commodity, will be suited likewise to an elaborate sort of the new. The 'tone' of the place, as it is called, causes this. Enterprising people, and people of inferior skill, flock to the one; steady wealth and finished skill accumulate in the other; each kind of man is attracted to the market which best suits him. Just so London, which, by the effect of the 'book,' became exclusively fit for first-rate wood ships, is now suitable only for first-rate iron ships, though they are wholly beyond the 'book.' Mr. Samuda tells us:—

"'I have here a paper sent to me from various firms, and arranged by myself, which represents the comparative wages that were paid at the same time in the different large shipbuilding ports of the kingdom. Perhaps it would be the most convenient course for you if I gave you the result. It comes to this, that supposing the price in London to be taken at 100, Birkenhead would be 92, Newcastle 82, and Glasgow 76—24 per cent. difference between Glasgow and London. This table was arrived at by obtaining particulars from the great establishments in various parts of the kingdom, which I will read over to you—Napiers of Glasgow, Denny Brothers of Dumbarton, Palmer of Newcastle, Laird Brothers of Birkenhead, and then in London the Thames Ship Building Company, Samuda, the Millwall Company, Dudgeon's, Green's, Wigram's, and Fletcher's. That is the general result of the whole.

"'16,728. (Chairman.) Did they produce at 76 per cent. as good an article in Glasgow as was produced in London at 100?—I am not inclined to agree to that; I think that there is a great misapprehension as to that. In some cases I believe that you can get a cheaper ship produced in the north than you can get in London, because the speciality of the north is devoted to building vessels of that particular description, but if they are called upon to produce that which is the peculiar speciality of London to produce—the highest class of work, my experience has never shown me that it could be produced cheaper in the north than it could be in London.'

"Very curiously to those who have not seen by study and experience how easily places acquire a trade character, and how sure that character is to spread into similar new trades, the peculiar stamp of the old wooden shipbuilding of London, is also impressed upon its new iron shipbuilding. But what bearing has this on the distress? If people fit for a certain kind of trade live at a certain place to carry on that trade, there is no special reason why at that place they should be particularly distressed; on the contrary, being just suited to the local demand, they ought to be remarkably well off. The missing link is 'Overend, Gurney, and Co.,' or rather that vicious kind of business which it fostered, and of which its own trade was the type. By reckless advances from Overends and others, several companies started up on the Thames on a great scale, which had no knowledge of the special high class shipbuilding of London, and if they had, could not have found it to carry on, its quantity being so limited. 'From the facilities,' says Mr. Samuda, 'given to undertake large operations, a number of establishments were started on a large scale, which had not grown to that large scale by experience, and the consequence was that the only description of work which they could get, was not that work for which London is specially adapted, but such work only as they could obtain in competition with the rest of England, and that, therefore, their failure became more rapid and more complete because they were competing for work which they were incapable of obtaining a paying price for.'

"The introduction of this new capital into the London trade was, of course, a harvest to the London shipwrights. The 'union' was for the time despotic. They could get high wages from a new company wanting new labour; they could exact the same from old firms unwilling to lose their regular labour, and after a little time the 'union' could make the high new rate universal and compulsory. Of course these companies were doing a ruinous trade, but did not give less wages on that account. 'Taking,' says Mr. Samuda, 'the period since I began business as a shipbuilder in 1851, every single establishment that was in existence as an iron shipbuilding establishment on the Thames at the time that I began business in 1851, with the exception of my own, has either failed or discontinued to work as a shipbuilding establishment.'

"'16,747. (Mr. Hughes.) Green's have not failed, have they?—Green and Wigram were not iron shipbuilders then; they have only just taken to building iron ships. But every single establishment that was in activity or in existence as an iron shipbuilding yard on the Thames when I began to build in 1851, and several that have started since, have either broken down, failed, or given up because they could not make money. Yet, notwithstanding that this has taken place, such an impression existed that profit was being made to a large extent by all these establishments, that the workmen did not hesitate to demand, and did obtain, a rise in wages to the extent of 15 per cent. during this time, under the belief that these were all healthy, and that they were profitable undertakings, and that they the workmen were not getting their fair share of the profits out of the undertakings; and yet every one of these establishments which have contributed this additional money to the workmen, although they had very excellent wages before, have, after having done so, finished by terminating their own existence. This has been the fate of London.'

"The nature of the shipwrights' distress in London is, therefore, very clear. In consequence of one set of curious circumstances, the paying shipbuilding and ship repairing business in London was of a most limited and peculiar character, and in consequence of another set a number of new undertakings had endeavoured to augment that trade. The rate of wages, already higher than at the outports, had increased, and more and more hands collected to take advantage of it. When the collapse came, the limited and special ship business of London was called on to find work for the persons whom an attempt to extend that business, begun improvidently, and, probably, continued blindly, had unhappily called together. For much in these complex facts the 'unions' are not responsible, but the moral of the whole story is that the operation of such societies works in an involved world, that it is protracted through a long line, and that in consequence of their surroundings and this long-continued action, it comes to produce effects which no one could have predicted, and which are quite against all the union ever aimed at. In 1825, the 'union' settled a book of prices which in forty years made this trade in London special and limited, and which prevented it from changing as it would have changed, and growing as it would have grown. Justly the 'unions' were naturally active in raising London wages when much new capital was thronging to this kind of London business. But recently, owing to the augmented supply of labour collected by the late action of the unions, and the short demand for labour created by its former action, a local glut of labour was created, painful to the whole city, and disastrous to the labourers themselves. There are many indications that the best working men are coming to understand the necessity of great caution in wage-augmenting action, and it is much to be wished that the philanthropic patrons of trades' unions would exert their influence to aid and strengthen this wholesome feeling."

III.—*The Railways of India.*

FROM the *Pall Mall Gazette* of the 1st and the 8th October last:—

I.

"If the introduction of railways into India was tardy, their development in that vast country has, all things considered, been encouraging. Sixteen years ago India had no railways. In 1853 the first line was opened; by the end of the year 22 miles were in working order; now 3,943 miles are in use by the public. Since 1860 the construction of permanent ways has been effected with greater vigour than at first, for during the six years ended with 1866, no less than 2,735 miles of new road were laid down and opened. The average work of those years was 456 miles annually. Last year 349 miles more were added, and thus the aggregate mileage was brought up to the number stated above. Contrasted with the network of railways stretching over England, the Indian system appears simplicity itself; the roads are nearly all main or trunk lines. Of branches, at present there are very few indeed.

"Three companies—the East Indian, the Great Indian Peninsula, and the Madras—have between them to lay down 656 miles in addition to their existing works; that accomplished, Madras will be in direct railway communication with Bombay; from Bombay a line will run through Central India and join the East Indian at Allahabad, thence eastward to Calcutta, and westward to Delhi and the Punjaub. From the terminus of the Punjaub line at Moultan, goods and passengers can be carried down the Indus by the steam flotilla to the Scinde line, and by that means reach Kurrachee, the extreme north-western seaport. An inspection of the railway map of India shows that of existing lines there are three termini on the eastern and four on the western seaboard of the Peninsula. The route just traced lies along the grand arteries of traffic. Of the smaller lines the Bombay and Baroda and the Nagpore branch of the Great Indian drain the principal cotton fields.

"Though certain lengths have to be completed, yet the benefits, both strategical and commercial, already derived from the existing lines are enormous. Ten years ago, when only 300 miles of railway were opened, 'it took,' says Mr. Danvers, 'about four weeks to travel by dâk, and as many months to convey a regiment from Calcutta to Simla; now it occupies five or six days.'

"The railways are in the hands of eleven companies; their relative importance is disclosed by the figures of the subjoined table:—

Mileage, 1*st of May*, 1868, *and Locomotives and Rolling Stock of Indian Railways*, 1*st of January*, 1868.

Railway.	Miles Open.	Locomotives.	Passenger Carriages.	Total Vehicles, including Waggons and Trucks.
East Indian	1,356	425	850	6,052
Great Indian Peninsula	874	209	958	5,533
Madras	645	106	262	2,942
Bombay, Baroda, and Central India	306	65	181	3,055
Scinde	109	25	66	804
Punjaub	246	38	116	785
Delhi	54	6	107	361
Eastern Bengal	114	32	92	601
Great Southern of India	168	15	33	238
Calcutta and South-Eastern	29	12	56	534
Oude and Rohilkund	42	4	12	49
Total	3,943	937	2,733	20,959

"The total length of lines at present sanctioned by Government is 5,609 miles, so that 1,666 miles remain to be finished. The East Indian main line has 145 miles, the Great Indian 393 miles, the Madras north-west line 180 miles, the Bombay and Baroda 7 miles, the Punjaub (Delhi line) 266 miles, the Eastern Bengal 45 miles, and the Oudh and Rohilkund no less than 630 miles. As the last company has only 42 lines opened, it must be the least advanced of any in the country. The other companies appear to have completed the lines sanctioned.

"There are great variations discernible in the proportion of locomotives to mileage and to rolling stock on the different lines; thus, the East Indian has one locomotive to 3·18 miles, the Madras one to 6 miles, and the Great Southern one to 11 miles, while the ratio of vehicles to each locomotive on the respective roads was 14, 28, and 16. The great cotton line, the Bombay and Baroda, has 46 vehicles per locomotive.

"The sketch map which accompanies the Government directors' report, shows that nearly all the great cotton fields of India are now connected by railroad with shipping ports. The collapse in the Indian cotton trade which followed the termination of hostilities in America must, to a considerable degree, have injured railway enterprise. During the half-year ended at Midsummer, India sent us only 729,000 bales of raw cotton; in the corresponding months of 1867, 940,000 bales; and for the same period of 1866, no less than 2,378,000 bales, or more than thrice this half-year's supply. Nevertheless, it is officially reported that 'railways are beginning to tell upon the cultivation of cotton in India in other ways than merely providing a more rapid and less costly mode of conveyance than formerly. Steam factories for cleaning cotton are springing up; machines for half-pressing are established in many places, and in others steam presses for packing the bales for shipment have been constructed.'

"Upwards of 75,000,000*l.* has been expended on the Indian railways; the chief part of that sum was subscribed in this country. The total number of proprietors on the 31st of December last was 49,690, of whom 40,221 were stockholders registered in England, and 819 in India; of the latter number, 422 are described as Europeans and 397 as natives. The debenture holders numbered 8,656.

"To England also the contractors had to look for goods and machinery, as well as money. The value of railway material and machinery shipped hence to India during the years 1853-67 was 23,253,000*l.*, exclusive of freight and insurance, which last year amounted to 25 per cent. on the value sent. These ponderous cargoes weighed in the aggregate 3,529,000 tons, and required 5,339 ships for their conveyance.

"A census of the number of persons employed on part of the railways was taken at Michaelmas last, when it appeared that there were 39,099 engaged; 36,048 were natives, and only 3,051 were set down as 'Europeans and East Indians.' At this time and for this number—the returns for the lines on the Bombay side are not included—2,475 miles and 271 stations were open; this, therefore, is less than two-thirds of the total mileage. It will be observed that of the railway establishments twelve out of thirteen employés are natives. True, this proportion does not hold with all departments; thus, in the printing and stationery department, of 362 persons engaged, 353 were natives; in the stores department, of 1,744 hands, 1,655 were natives; in the locomotive department there were 1,288 Europeans and East Indians to 5,219 natives; the special knowledge wanted for the latter department, rendering the employment of a larger number of Europeans necessary.

"The European portion of the railway service is composed of a class of men who until recently were little connected with any department of Indian administration. 'A civil engineer was seldom seen in India before railways were introduced, and the usual staff of a railway, from the traffic manager and locomotive superintendent to the engine driver and stoker, were of course unknown. Now, it will be observed, they are to be counted by thousands. They go out from this country generally between 25 and 30 years of age, and many spend the best years of their lives there. The mortality amongst them, notwithstanding the exposure to which they are subject, has been below the average.' The pay is already high, usually double that which a man of the same calling would obtain at home, and other inducements are held out to healthy and efficient hands to enter the Indian railway service.

"The capital authorised to be raised is at present upwards of 84,000,000*l.*; the amount actually raised up to the 31st of March of the current year, 76,579,000*l.*; 60,049,000*l.* on shares or stocks, and 16,530,000*l.* on debentures. Included in these sums is 9,000,000*l.* raised during 1867. The capital account of each company is shown hereunder:—

Capital Authorised by Government; the Amount Raised, and the Amount Expended on Indian Railways up to the 31*st of March*, 1868.

Railway.	Authorised Capital.	Amount Actually Raised.	Amount Withdrawn for Expenditure.
	£	£	£
East Indian	28,650,000	28,437,518	28,862,397
Great Indian Peninsula	19,000,000	18,248,180	17,614,586
Madras	10,000,000	9,550,441	8,785,962
Scinde	2,250,000	2,097,494	2,111,073
Indus Flotilla	624,000	331,405	577,052
Punjaub	2,750,000	2,040,253	2,618,391
Delhi	5,000,000	3,451,164	3,129,145
Bombay, Baroda, and Central India	7,500,000	7,369,164	7,206,126
Eastern Bengal	2,662,000	2,519,498	2,336,286
Calcutta and South-Eastern	600,000	441,350	615,242
Great Southern	1,350,000	1,350,000	1,354,077
Oude and Rohilkund	4,000,000	742,549	361,319
Total	84,386,000	76,579,016	75,071,656

"It would appear from this statement that, at the latest date to which the accounts were made up, 1,500,000*l.* odd was the cash balance in hand, for it had not been 'withdrawn for expenditure.' The total amount of capital which the companies estimated they should require was 93,916,000*l.*; the Government sanction was, as the table shows, 10 per cent. under that sum.

"The money was obtained in the following manner:—

	£	£
Raised in England—		
By shares		59,253,013
„ convertible debentures	6,357,445	
„ inconvertible „	10,172,700	
		16,530,145
Raised in India		795,858
Total at 31st of March, 1868		76,579,016

"The pecuniary share of India in these great undertakings was evidently insignificant.

"The 75,000,000*l.* which has already been expended on the railways does not represent the whole of their cost. The land granted by Government to the companies cannot be taken at less than 2,500,000*l.*; besides this, the Government, by making up the difference between the contract rate of the rupee—namely 1*s.* 10*d.* —and the average rate of exchange during the construction of the works—*i.e.*, 2*s.* —has contributed about 8 per cent. to the capital expended in India. This difference in value would amount to 3,600,000*l.* 'The actual cost of the railways,' Mr. Danvers remarks, 'is thus raised from 75,000,000*l.* to 81,000,000*l.* But the amount upon which the profits are divisible is, fortunately for the companies, limited to their contribution.'

"Of the shareholders' contributions 45,000,000*l.* were expended in India, and for goods, freight, and insurance 30,000,000*l.* in England."

II.

"We are told that 'Indian railways do not form an exception to the rule that expenditure always exceeds estimates. In some cases the cost has been three or four times greater than was expected. In others the excess has been very small.' If the companies have had grants of land and other advantages afforded them by Government, the charge for freight and marine insurance has borne heavily upon their resources. The East Indian line will average about 22,000*l.* per mile, but this expenditure includes losses occasioned by the mutiny. The Bombay and Baroda will be at the same rate until the extension to Delhi is completed. The Scinde will cost 20,000*l.* The Madras has cost only 12,000*l.* or thereabouts; the Great Southern, 10,000*l.*; and the line between Cawnpore and Lucknow less than 7,000*l.* per mile.

"The bulk of the expenditure on each line is stated in the report under five or six chief heads for each company. We select the four largest undertakings:—

Chief Items of Expenditure.	Railways.			
	East Indian.	Great Indian Peninsula	Madras.	Bombay, Baroda, &c.
	£	£	£	£
Works and bridges	8,775,000	6,845,600	2,446,900	2,896,500
Permanent way and stations	6,485,000	4,938,500	2,999,800	1,735,400
Freight and insurance	2,785,000	1,817,700	1,061,000	586,800
Rolling stock and engines	3,145,000	1,888,000	798,000	1,096,800
Establishments	3,380,000	1,156,200	717,200	433,800
Miscellaneous, electric telegraph stores, &c.	3,352,000	196,000	362,700	470,000
Total	27,922,000	16,842,000	8,385,600	7,219,300

"The construction of the Madras line, one of the cheapest, involved an outlay of one-eighth of the total expenditure for freight and insurance. The Bombay and Baroda appears to have been more fortunately situated with respect to the same items.

"Single rails are characteristic of the Indian permanent way. Of nearly 4,000 miles now open, only 209 are provided with double rails, and these are found on four lines, viz., the East Indian, which has 94½; the Great Indian Peninsula, 98; the Bombay, Baroda, and Central India, 11¾; and the Scinde 5 miles. The traffic is eminently a goods traffic, for less than one-third of the total revenue is raised from passengers. The passenger traffic is markedly a third-class traffic. Last year 13¾ million of passengers were conveyed by the various Indian lines, and of those persons 13,000,000 were third-class and parliamentary passengers. This contrasts curiously with the statistics of passenger traffic in this country, where the travellers hold this proportion or thereabouts—to four persons using the third-class and parliamentary carriages there are two who go by the second-class, and one who travels first-class. Season ticket holders on Indian lines are numerically insignificant, being but slightly over 6,000. The passenger traffic for each line is shown by the following table:—

Passenger Traffic of Indian Railways for the Year ended the 30th of June, 1867.

Railway.	Number of Passengers.			
	First Class.	Second Class.	Third Class and Parliamentary.	Total.
East Indian	34,119	111,850	4,280,642	4,426,611
Great Indian Peninsula	32,688	207,761	2,830,164	3,070,613
Madras	8,019	70,375	1,833,752	1,912,146
Bombay, Baroda, and Central India	7,102	40,216	1,505,404	1,552,722
Scinde	2,097	5,549	135,589	143,235
Punjaub	6,312	25,383	585,113	616,809
Eastern Bengal	39,827	47,957	1,102,504	1,190,289
Great Southern of India	2,133	—	437,027	439,160
Calcutta and South-eastern	3,653	16,215	339,277	359,145
Oude and Rohilkund	301	813	34,469	35,584
Total	136,251	526,119	13,083,941	13,746,311

"Indian fares are low. The third-class vary from one-third of a penny to one halfpenny per mile; the second-class from three-farthings to something over 1*d.* per mile; and the first-class from 1½*d.* to 2½*d.* a mile.

"With the exception of sheep, the live stock traffic appears to be very small. During the year the Great Indian conveyed 208,000, and the Bombay and Baroda 212,000 sheep. The aggregate weight of general merchandise carried, exclusive of minerals, was nearly 2,000,000 tons. Excluding shunting, the number of miles travelled by trains of the four largest companies were these: the East Indian, 5,239,000 miles; the Great Indian Peninsula, 2,630,000 miles; the Madras, 1,362,000 miles; and the Bombay, Baroda, and Central India, 757,000 miles during the year.

"The subjoined statement shows that the aggregate gross receipts of all the companies in 1866-67, approached the large sum of 5,000,000*l.*, of which 1,377,000*l.* was collected from passengers, or 100,000*l.* more than in the previous year; and 3,321,000*l.* for minerals and goods, showing an increase of 229,000*l.*;

the year's increase, therefore, from both branches of receipt was 329,000*l.*—this was on the 'gross receipts,' be it observed. The net revenue was only 32,000*l.* in excess of the previous twelve months. But last year the increase over its predecessor was very large, for it is stated that in the 'two years the revenue has increased upwards of 1,000,000*l.*'

Receipts of Indian Railways for the Year ended with 30th June, 1867.

Railway.	From			Total.
	Passengers, &c.	Goods and Minerals.	Telegraph and Sundries.	
	£	£	£	£
East Indian	557,511	1,488,290	111,333	2,157,134
Great Indian Peninsula	323,880	1,073,811	19,469	1,417,160
Madras	168,375	280,929	16,282	465,586
Bombay, Baroda, and Central India	186,546	225,113	22,066	433,725
Scinde	15,067	96,225	—	111,292
Punjaub	34,869	56,977	—	91,846
Eastern Bengal	61,666	71,608	7,083	140,357
Oude and Rohilkund*	2,540	120	—	2,660
Great Southern of India	26,358	27,534	1,460	55,352
Total	1,376,812	3,320,607	177,693	4,875,112

* For nine weeks only, viz., from 9th April.

"The working expenses and maintenance of the Indian lines absorbed more than half the gross receipts; here, at home, the corresponding charges are very appreciably less than one-half of the receipts. The total expenditure of the Indian companies amounted to 2,538,000*l.*, leaving 2,337,000*l.* as net receipts.

Expenditure and Net Receipts of Indian Railways for the Year ended with the 30th of June, 1867.

Railway.	Expenditure.			Net Receipts.
	Working Expenses.	Maintenance.	Total.	
	£	£	£	£
East Indian	782,897	201,544	984,441	1,172,693
Great Indian Peninsula	624,323	159,792	784,115	633,045
Madras	137,724	66,805	204,529	261,057
Bombay, Baroda, and Central India	233,311	76,336	309,647	124,078
Scinde	—	—	89,136	22,156
Punjaub	—	—	71,314	20,532
Eastern Bengal	54,111	14,247	68,358	71,999
Oude and Rohilkund*	1,160	—	1,160	1,500
Great Southern of India	19,955	5,157	25,112	30,240
Total	1,853,481	523,881	2,537,812	2,337,300

* For nine weeks only.

"Mr. Danvers has instituted a rather minute comparison of receipts and expenditure per train mile of the Indian lines with those of Great Britain and the Grand Trunk Line of Canada. We place the receipts and the expenses in juxtaposition after the names of a few lines, by way of illustration, thus:—East Indian, 8s. 3d.—3s. 6d.; Great Indian Peninsula, 10s. 9d.—6s.; Madras, 6s. 1d.—3s. 1d.; Bombay, Baroda, and Central India, 11s.—7s. 4d. The railways of Great Britain in 1865, 5s. 1½d.—2s. 6d.; and the Grand Trunk of Canada in 1866, 5s. 7½d.—4s. The Indian bear comparison with the British lines, but their economic plight would be wretched indeed if they approached the condition of the great Canadian company. The price of fuel seriously affects the cost of the locomotive departments of the various companies. In the East Indian the locomotive expenditure per train mile was 1s. 3¼d.; in the Great Indian Peninsula it was 2s. 6¾d.; in the Bombay and Baroda it was 2s. 3¾d.; and in the Madras, 1s. 1½d. It is officially stated that 'with regard to wood fuel, measures have been taken by the Government for planting and preserving forests for the purpose. With respect to coal, an abundant supply is obtained in Bengal; but the beds in Central India have not yet been made available for railway purposes, access to them having been delayed by the tardy operations of the Great Indian Peninsula Railway.' But little insight of these lines is needed to discover how much their prosperity is dependent on the price of fuel. The line last named paid 51s. a ton for coal; the cost in England being 27,418l., the freight, &c., amounting to nearly four times that sum, namely, 98,708l.; coke, 62s. a ton; and patent fuel, 54s. a ton; and these are not the highest figures quoted. The Madras lines are as dependent on England for coal as the companies in Western India. The lower expenditure of the Madras 'is partly due to the more general use of wood, but partly also to the economical system of management, which reflects credit on the railway authorities in the Madras presidency.'

"Perhaps no better evidence is wanted of the general success of Indian railways than that afforded by the large sum recouped the Government for guaranteed interest. The whole sum which has been paid by Government under its guarantee, now amounts to 22,212,500l., of which about 9,500,000l. has been recovered from the companies, leaving something above 12,000,000l. as their present debt, and which is chargeable against the half of their surplus profits over 5 per cent. The interest advanced to the companies in 1867 was 3,238,000l.; almost all of this was paid in England.

"We conclude with a passage that may be profitably conned by railway directors in this country. 'One great advantage of the guarantee system,' observes Mr. Danvers, 'is that it provides effectual means for keeping the capital and revenue accounts perfectly distinct. Every sixpence which is advanced by the Government for interest on the capital, both before and after the lines are opened, is charged against revenue. An account is kept of the sums so advanced, and the Government is reimbursed, under the terms of the contracts, out of the profits of the railways. Rules have, moreover, been laid down for the guidance of those who have to make up and examine the half-yearly revenue accounts. True and real profits are carefully defined, and it is shown how they are to be ascertained.' By these means the confusion between capital and revenue accounts is rendered impossible."

IV.—*Post Office Annuities and Assurances.*

FROM the *Pall Mall Gazette:*—

"We recently adverted to the annuity and life assurance business of the General Post Office. The figures were quoted from the annual report of the department, which gave the history of its proceedings up to the close of 1866. A subsequent report continues the information to the end of 1867. The whole sum received for immediate and deferred annuities was 143,217*l.* This was the result of two years and eight months' working. The post office began this branch of its multifarious duties on the 17th of April, 1865. In addition to the ordinary payments there were certain fees received on 'annuity contracts,' amounting to 736*l.*; hence, the total was 143,953*l.* The premiums were paid in 1,329 separate sums, thus:—For 'immediate annuities,' 136,637*l.* in 552 sums; for 'deferred annuities and monthly allowances, money not returnable,' 3,893*l.* in 129 sums; and for 'deferred annuities and monthly allowances, money returnable,' 2,687*l.* in 548 sums. The post office has, during the whole term, paid to its annuitants 11,650*l.*, and 'repaid to contractors' premiums to the extent of 227*l.* The whole was, therefore, 11,877*l.* The year 1866 began with 400 annuitants, who were then or had been, on the books, and closed with 709; the total sum for which contracts had been granted was 15,437*l.*, thus distributed:—

	£	s.
For 551 immediate annuities	12,393	17
" 57 deferred annuities and monthly allowances, money not returnable	1,125	11
" 101 deferred annuities and monthly allowances, money returnable	1,917	18

But the contracts in force on the 31st of December, 1867, were less than this, for twenty-seven appear to have been determined—six in the first, five in the second, and sixteen in the third section, leaving the Government liable for 14,820*l.* It is plain from the foregoing statistics, that 'immediate annuities' are by far the most popular investments. Considering the facilities and advantages of the post office scheme, the development of the business is certainly slow. On the 31st of December, 1866, the office had received in premiums 4,005*l.*; in the following year 3,580*l.* was added thereto, making the total sum received in two years and nine months 7,585*l.* That was paid in 10,256 sums; consequently the average payments were rather under *fifteen shillings* each. There were 1,168 policies issued by the 31st of December, 1866; but in the subsequent twelve months only 364 were granted. The aggregate number issued was 1,532, and the total amount insured 114,900*l.* But since the whole number in force at the end of last year was only 1,485, there were forty-seven policies which had lapsed or had been satisfied. Of all the lives insured only six had fallen in, and upon those the office paid 388*l.* Whether this be a large or small proportion to the number of selected lives, we must leave actuaries to answer. The charges of management for both annuities and insurances during the two years and three quarters were 2,911*l.*; against which the office received in the shape of fees, on the grant of certain annuities, 736*l.* Whether or not the slow progress of the annuity scheme is owing to the preference of working men for less secure associations connected with their unions, it is clear that there is no popular distrust of the post office. In the postal savings banks the money standing to the credit of 851,000 depositors on the 31st of December, 1867, was little short of 10,000,000*l.* sterling. There can be no stronger mark of public confidence than this."

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—Quarter ended June, 1868.

BIRTHS and DEATHS—Quarter ended September, 1868.

A.—*Serial Table of* Marriages, Births, *and* Deaths, *returned in the Years* 1862-68, *and in the* Quarters *of those Years.*

Calendar Years, 1862-68:—*Numbers.*

Years.........	'68.	'67.	'66.	'65.	'64.	'63.	'62.
Marriages No.	—	178,791	187,776	185,474	180,387	173,510	164,030
Births........ ,,	—	767,897	753,870	748,069	740,275	727,417	712,684
Deaths .... ,,	—	471,102	500,689	490,909	495,531	473,837	436,566

Quarters *of each Calendar Year*, 1862-68.

(I.) Marriages:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	36,670	36,380	37,579	36,807	37,988	35,528	33,953
June .... ,,	45,226	45,462	48,577	45,827	44,599	44,146	40,853
September ,,	—	44,003	46,257	45,852	44,675	41,932	40,600
December ,,	—	52,946	55,363	56,988	53,125	51,904	48,624

(II.) Births:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	198,594	195,355	196,753	194,130	192,947	186,341	181,990
June .... ,,	202,892	199,649	192,437	192,988	188,835	189,340	185,554
September ,,	192,467	190,255	179,086	181,941	181,015	173,439	172,709
December ,,	—	182,638	185,594	179,010	177,478	178,297	172,431

(III.) Deaths:—*Numbers.*

Qrs. ended last day of	'68.	'67.	'66.	'65.	'64.	'63.	'62.
March........ No.	120,095	134,254	138,136	140,410	142,977	128,096	122,019
June .... ,,	109,984	112,523	128,551	115,892	116,880	118,121	107,392
September ,,	130,502	108,462	116,650	113,362	112,223	112,504	92,381
December ,,	—	115,863	117,352	121,245	123,451	115,116	114,774

Annual Rates per Cent. of PERSONS MARRIED, *and of* BIRTHS, *and* DEATHS, *during the Years* 1862-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1862-68:—*General Percentage Results.*

YEARS............	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
Estmtd. Popln. of England *in thousands* in middle of each Year....	21,649	—	21,430	21,210	20,991	20,772	20,554	20,336
Persons Married Per ct.	—	1·689	1·668	1·770	1·768	1·736	1·688	1·614
Births .... „	—	3·508	3·584	3·554	3·564	3·564	3·539	3·504
Deaths.... „	—	2·257	2·198	2·361	2·339	2·386	2·305	2·147

QUARTERS *of each Calendar Year,* 1862-68.

(I.) PERSONS MARRIED:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	1·364	1·398	1·382	1·442	1·428	1·472	1·408	1·360
June........ „	1·678	1·717	1·704	1·840	1·754	1·724	1·726	1·614
Septmbr. „	—	1·635	1·628	1·728	1·732	1·704	1·616	1·582
Decembr. „	—	1·995	1·954	2·064	2·146	2·022	1·996	1·890

(II.) BIRTHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	3·694	3·674	3·713	3·777	3·765	3·740	3·691	3·644
June........ „	3·764	3·637	3·742	3·644	3·692	3·651	3·700	3·665
Septmbr. „	3·523	3·371	3·518	3·346	3·434	3·453	3·343	3·365
Decembr. „	—	3·347	3·368	3·458	3·370	3·376	3·428	3·350

(III.) DEATHS:—*Percentages.*

Qrs. ended last day of	'68.	Mean '58-67.	'67.	'66.	'65.	'64.	'63.	'62.
March .... Per ct.	2·234	2·576	2·551	2·652	2·723	2·772	2·538	2·443
June........ „	2·040	2·220	2·109	2·434	2·217	2·260	2·308	2·121
Septmbr. „	2·389	2·024	2·006	2·179	2·140	2·141	2·169	1·800
Decembr. „	—	2·211	2·137	2·187	2·283	2·349	2·213	2·230

B. — *Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended September,* 1868.

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Mean Temperature.
			Beef.	Mutton.		In-door.	Out-door.	
	£	*s. d.*	*d. d. d.*	*d. d. d.*	*s. s. s.*			°
1866 Sept. 30	88⅜	51 –	5¼—7¼ 6⅛	5½—8¼ 6¾	75—120 97	120,955	717,553	58·9
Dec. 31	89$\frac{4}{8}$	56 8	4¾—7 5⅞	5¼—7½ 6⅜	85—130 107	133,979	734,312	46·2
1867 Mar. 31	90⅞	60 7	4¾—7 5⅞	5—7¼ 6⅛	115—160 137	147,620	832,364	38·9
June 30	92$\frac{4}{8}$	63 11	4¾—6¾ 5¾	5¼—7¼ 6¼	135—175 155	134,678	779,629	53·5
Sept. 30	94$\frac{4}{8}$	65 4	4¾—6¾ 5¾	5—7 6	100—155 127	129,838	743,977	59·7
Dec. 31	94⅝	67 11	4½—6¾ 5⅝	4½—6½ 5½	110—155 132	146,237	771,230	42·5
1868 Mar. 31	93	72 2	4¼—6½ 5⅜	4¼—6½ 5⅜	125—170 147	159,716	860,165	41·4
June 30	94⅜	71 10	4½—6¾ 5⅝	4¾—7 5⅞	130—170 150	142,588	800,944	55·8
Sept. 30	94⅜	59 1	4½—6¾ 5⅝	4¾—6¾ 5¾	120—175 147	138,284	778,804	63·9

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England in the Ten Years* 1851-60; *in the Year* 1867; *in the Summer, and Autumn Quarters of* 1867; *and in the Winter, Spring, and Summer Quarters of* 1868.

Divisions.	Average Annual Rate of Mortality to 1,000 Living in						
	Ten Years, 1851-60.	1867.			1868.		
		Year.	Summer Quarter.	Autumn Quarter.	Winter Quarter.	Spring Quarter.	Summer Quarter.
I. London	23·63	22·98	21·27	23·61	23·29	21·88	24·58
II. South-Eastern counties	19·55	18·90	17·64	18·07	19·14	17·01	21·18
III. South Midland „	20·44	20·32	18·34	19·03	20·01	17·13	23·08
IV. Eastern counties	20·58	19·33	17·24	18·38	19·43	18·05	21·48
V. South-Western counties ...	20·01	19·13	15·89	17·65	20·21	16·94	17·04
VI. West Midland „ ...	22·35	20·70	18·82	20·30	21·31	19·19	23·29
VII. North Midland „	21·10	20·31	18·63	19·25	20·59	19·89	24·09
VIII. North-Western „ ...	25·51	25·89	23·76	26·31	26·31	23·92	28·80
IX. Yorkshire	23·09	23·64	22·65	21·89	22·53	22·51	27·99
X. Northern counties	21·99	24·73	23·19	24·67	24·80	21·95	25·35
XI. Monmouthshire and Wales	21·28	20·68	17·82	18·85	22·12	19·89	18·45

Note.—The above mortality for the *year* 1867 is the mean of the quarterly rates.

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per Cent. in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1868-66.

	Area in Statute Acres.	Population Enumerated.	Quarters ending	Annual Rate of Mortality per Cent. in each Quarter of the Years			
		1861.		1868.	Mean '58-67.	1867.	1866.
In 142 Districts, and 56 Sub-districts, comprising the *Chief Towns*	3,287,151	10,930,841	March ..	2·403	2·761	2·732	2·966
			June	2·220	2·353	2·199	2·639
			Sept.	2·649	2·249	2·243	2·513
			Dec.	—	2·460	2·380	2·439
			Year	—	2·456	2·389	2·639
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,087,732	9,135,383	Year	—	2·014	1·955	2·008
			March ..	2·012	2·350	2·315	2·250
			June	1·804	2·057	1·991	2·171
			Sept.	2·044	1·746	1·696	1·749
			Dec.	—	1·902	1·818	1·860

Note.—The three months, January, February, March, contain 90, in leap year 91 days; the three months, April, May, June, 91 days; each of the last two quarters of the year 92 days. For this inequality a correction has been made in the calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE and RAINFALL *in last Summer Quarter, in Fourteen Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1868.	Births in 13 Weeks ending 26th Sept., 1868.	Deaths in 13 Weeks ending 26th Sept., 1868.	Annual Rate to 1,000 Living during the 13 Weeks ending September.		Mean Temperature in 13 Weeks ending 26th Sept., 1868.	Rainfall in Inches in 13 Weeks ending 26th Sept., 1868.
				Births.	Deaths.		
Total of 14 large towns....	6,441,525	57,004	44,251	35·52	27·57	60·5	5·73
London	3,126,635	26,979	19,149	34·63	24·58	63·7	4·40
Bristol (city)	167,487	1,397	909	33·48	21·78	—	—
Birmingham (borough)...	352,296	3,154	2,617	35·93	29·82	61·3	7·31
Liverpool (borough)	500,676	4,656	4,021	37·32	32·23	61·1	3·73
Manchester (city)	366,835	3,399	3,457	37·19	37·82	—	—
Salford (borough)	117,162	1,127	1,051	38·61	36·00	60·6	4·96
Sheffield (borough)	232,362	2,223	1,882	38·40	32·51	60·5	5·44
Bradford (borough)	134,000	1,213	1,028	36·33	30·79	—	—
Leeds (borough)................	246,851	2,352	2,059	38·24	33·48	60·4	5·22
Hull (borough)	122,628	1,038	916	33·97	29·98	58·5	5·89
Newcastle-on-Tyne (borough)	127,701	1,176	873	36·96	27·44	57·0	4·66
Edinburgh (city)	177,039	1,585	1,158	35·93	26·25	59·1	9·22
Glasgow (city)	449,868	4,448	3,262	39·68	29·10	58·7	6·43
Dublin (city and some suburbs)	319,985	2,257	1,869	28·31	23·44	60·8	5·82
Vienna................................	(1863.) 560,000	—	3,699	—	26·51	67·3	—

Note.—The population used in deducing the birth and death-rates for the quarter is not estimated for any particular quarter, but for the middle of the year.

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended* 30*th June,* 1868-66; *and* BIRTHS *and* DEATHS *in Quarters ended* 30*th September,* 1868-66.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA in Statute Acres.	POPULATION, 1861. (*Persons.*)	MARRIAGES in Quarters ended 30th June.		
			1868.	1867.	1866.
		No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	37,324,883	20,066,224	45,226	45,462	48,577
I. London	77,997	2,803,989	8,011	8,224	8,764
II. South-Eastern	4,065,935	1,847,661	3,852	3,730	3,839
III. South Midland	3,201,290	1,295,515	2,200	2,205	2,229
IV. Eastern	3,214,099	1,142,562	1,695	1,703	1,732
V. South-Western	4,993,660	1,835,714	3,316	3,317	3,692
VI. West Midland	3,865,332	2,436,568	5,217	5,198	5,924
VII. North Midland	3,540,797	1,288,928	3,090	3,141	3,178
VIII. North-Western	2,000,227	2,935,540	7,640	7,479	8,004
IX. Yorkshire	3,654,636	2,015,541	4,654	4,867	5,135
X. Northern	3,492,322	1,151,372	2,864	2,788	3,140
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,687	2,810	2,940

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th September.			DEATHS in Quarters ended 30th September.		
	1868.	1867.	1866.	1868.	1867.	1866.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	192,467	190,255	179,086	130,502	108,462	116,650
I. London	26,979	27,254	25,799	19,149	16,337	22,363
II. South-Eastern	16,908	16,478	15,219	10,825	8,900	9,007
III. South Midland	11,868	11,311	10,773	7,810	6,176	5,855
IV. Eastern	9,385	9,409	8,670	6,302	5,044	5,273
V. South-Western	14,215	14,389	13,480	7,989	7,436	8,058
VI. West Midland	23,560	23,512	22,102	15,754	12,561	11,482
VII. North Midland	11,960	11,493	10,846	8,172	6,282	5,888
VIII. North-Western	31,024	30,666	28,415	24,054	19,522	22,037
IX. Yorkshire	21,200	21,212	19,684	15,520	12,409	11,918
X. Northern	12,983	12,406	12,168	8,350	7,507	6,984
XI. Monmthsh. & Wales	12,385	12,125	11,930	6,577	6,288	7,785

G.—*General Meteorological Table, Quarter ended June,* 1868.

[Abstracted from the particulars supplied to the Registrar-General by JAMES GLAISHER, ESQ., F.R.S., &c.]

1868. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 97 Years.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.		Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
July ...	67·5	+6·1	+5·9	60·3	+3·0	54·6	+1·0	26·3	+5·5	67·9	·427	+·015	4·7	+0·1
Aug. ...	63·6	+2·9	+2·4	58·7	+1·4	54·5	+0·7	20·1	+0·5	65·9	·425	+·007	4·7	+0·1
Sept. ...	60·5	+4·0	+3·4	56·1	+2·1	52·2	+1·1	20·6	+2·1	60·8	·391	+·010	4·4	+0·2
Mean ...	63·9	+4·3	+3·9	58·4	+2·2	53·8	+0·9	22·3	+2·7	64·9	·414	+·011	4·6	+0·1

1868. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Mean.	Diff. from Average of 27 Years.	Amnt.	Diff. from Average of 53 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
July ...	63	−13	29·891	+·092	524	− 4	1·1	−1·3	229	0	1	30	39·4	60·6
Aug. ...	73	− 4	29·736	−·060	526	− 3	2·5	+0·1	264	0	2	29	38·6	60·0
Sept. ...	74	− 7	29·693	−·128	528	− 6	1·5	−1·3	240	0	3	27	34·1	54·3
Mean ...	70	− 8	29·773	−·029	526	− 4	Sum 5·1	Sum −2·5	Mean 244	Sum 0	Sum 6	Sum 86	Lowest 34·1	Highest 60·0

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

Thunderstorms occurred on the 9th July at Sidmouth, Osborne, Taunton, Bath, and Oxford; on the 11th at Guernsey, Bournemouth, Weybridge Heath, Strathfield Turgiss, Streatley, London, Oxford, and Cardington; on the 12th at Osborne, Bournemouth, Worthing, Taunton, Wilton, Tunbridge Wells, Weybridge Heath, Strathfield Turgiss, London, and Oxford; on the 13th at Guernsey; on the 15th at Taunton, Strathfield Turgiss, Bath, Streatley, Eccles, and Halifax; on the 16th at Norwich; on the 22nd at Ripon; on the 23rd at Hull; on the 25th at Guernsey; on the 26th at Helston, Truro, and London; and on the 28th at Holkham, Ripon, Allenheads, and Bywell. On the 3rd August at Guernsey, Helston, and Truro; on the 4th at Guernsey; on the 5th at North Shields; on the 6th at Wisbech, Grantham, Boston, Halifax, and North Shields; on the 7th at Leeds; on the 10th at Eccles; on the 11th at Tunbridge Wells, Royston, Norwich, Wisbech, Grantham, Nottingham, Boston, Hawarden, Eccles, Liverpool, Hull, Stonyhurst, Allenheads, Silloth, Carlisle, and Bywell; on the 12th at Aldershot Camp; on the 13th at Aldershot Camp and Norwich; on the 15th at Guernsey; on the 16th at Osborne and Wilton; on the 17th at Tunbridge Wells and Eccles; on the 18th at Hawarden; on the 22nd at Boston, Hawarden and Hull; and on the 27th at Carlisle. On the 8th September at Halifax and Hull; on the 17th at Helston and Truro.

H.—*Special Meteorological Table, Quarter ended* 30*th September*, 1868.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	*Mean Temperature of the Air.*	Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·494	81·5	50·0	31·5	26·2	9·9	60·7	85
Barnstaple	29·508	87·4	44·0	43·4	40·6	17·3	63·2	73
Osborne	29·478	90·6	44·2	46·4	39·6	21·3	63·3	83
Royal Observatory	29·529	96·6	43·6	53·0	46·5	22·4	63·9	70
Royston	29·564	95·9	41·9	54·0	50·6	23·1	63·1	70
Lampeter	29·620	89·8	35·0	54·8	52·4	24·2	60·0	73
Norwich	29·566	87·8	44·2	43·6	39·0	16·9	62·6	68
Derby	29·517	92·0	44·0	48·0	43·0	19·4	62·3	68
Halifax	29·529	86·0	33·0	53·0	44·0	16·5	57·5	82
Stonyhurst	29·533	88·1	40·0	48·1	44·4	18·4	59·6	78
North Shields	29·651	83·3	45·0	38·3	35·0	12·7	57·8	74

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			in.
Guernsey	1·4	10	7	6	8	3·2	31	6·2
Barnstaple	1·1	4	8	11	8	2·1	33	4·8
Osborne	0·7	9	9	6	7	4·2	30	9·0
Royal Observatory	0·4	7	7	8	9	5·5	26	5·1
Royston	—	10	4	7	10	5·3	31	7·6
Lampeter	0·4	4	13	6	8	5·5	27	9·9
Norwich	—	8	6	8	9	—	24	6·2
Derby	—	6	8	7	10	—	30	5·1
Halifax	0·5	5	10	6	10	5·8	—	—
Stonyhurst	0·7	7	8	5	11	5·6	46	7·7
North Shields	1·5	7	6	8	10	5·9	43	6·0

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 30TH SEPTEMBER, 1868.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population, Estimated to the Middle of each Year, during each Quarter of the Years* 1868 *to* 1864 *inclusive.*

	1868.		1867.		1866.		1865.		1864.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	28,736	3·60	27,969	3·52	28,876	3·66	28,608	3·65	28,177	3·61
Deaths	18,036	2·26	19,981	2·51	19,075	2·42	20,786	2·65	22,576	2·89
Marriages ..	5,287	0·66	5,332	0·66	5,627	0·71	5,407	0·69	5,333	0·65
Mean Temperature	40°·6		36°·5		38°·0		35°·3		35°·7	
2nd Quarter—										
Births	31,025	3·89	30,393	3·83	29,801	3·78	30,332	3·86	29,992	3·84
Deaths	16,928	2·12	17,464	2·20	18,556	2·35	17,066	2·17	18,445	2·35
Marriages ..	5,660	0·71	5,602	0·70	6,019	0·76	5,698	0·72	5,710	0·73
Mean Temperature	51°·0		49°·0		49°·3		51°·5		49°·9	
3rd Quarter—										
Births	28,393	3·56	27,888	3·51	27,197	3·45	27,320	3·48	27,063	3·47
Deaths	16,662	2·09	15,106	1·90	15,451	1·95	15,907	2·02	16,131	2·06
Marriages ..	4,804	0·59	5,047	0·63	5,089	0·64	5,335	0·68	4,993	0·64
Mean Temperature	57°·4		55°·2		54°·4		57°·5		54°·5	
4th Quarter—										
Births	—	—	27,865	3·51	27,765	3·52	26,866	3·42	27.213	3·49
Deaths	—	—	16,473	2·07	18,191	2·30	17,072	2·17	17,151	2·19
Marriages ..	—	—	6,540	0·82	6,894	0·87	7,137	0·91	6,639	0·85
Mean Temperature			42°·3		43°·5		43°·4		42°·0	
Year—										
Population.	3,188,125		3,170,769		3,153,413		3,136,057		3,118,701	
Births	—	—	114,115	3·59	113,639	3·60	113,126	3·60	112,445	3·60
Deaths	—	—	68,024	2·14	71,273	2·26	70,821	2·25	74,303	2·38
Marriages ..	—	—	22,521	0·70	23,629	0·75	23,577	0·75	22,675	0·72

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending 30th September,* 1868, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

	Population.		Total Births.			Illegitimate Births.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	28,393	3·56	28	2,812	9·9	10·1
128 town districts	1,615,475	1,735,527	16,773	3·86	26	1,591	9·5	10·5
890 rural ,,	1,446,819	1,452,598	11,620	3·19	31	1,221	10·5	9·5

	Population.		Deaths.			Marriages.		
	Census, 1861.	Estimated, 1868.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,062,294	3,188,125	16,662	2·09	48	4,704	0·59	168
128 town districts	1,615,475	1,735,527	11,248	2·59	38	3,318	0·76	130
890 rural ,,	1,446,819	1,452,598	5,414	1·49	67	1,386	0·38	266

Note.—The constitution of several of the districts was altered on January 1, 1868; consequently the numbers of the population in the town and rural districts differ somewhat from those of previous years.

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending 30th September,* 1868.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	9·9						
Northern	5·2	Shetland	2·8	Forfar	12·3	Lanark	9·1
		Orkney	4·1	Perth	10·3	Linlithgow .	8·1
North-Western	6·4	Caithness	6·5	Fife	8·2	Edinburgh .	8·8
North-Eastern	15·0	Sutherland...	7·9	Kinross	10·0	Haddington	8·6
		Ross and Cromarty	5·1	Clackmannan	8·2	Berwick	10·1
East Midland..	10·5					Peebles........	10·2
West Midland.	7·4	Inverness	7·8	Stirling	7·7	Selkirk	6·5
		Nairn............	7·9	Dumbarton ..	7·5	Roxburgh ..	10·7
South-Western	9·0	Elgin	15·7	Argyll	7·4	Dumfries	14·4
South-Eastern.	8·7	Banff	15·8	Bute	5·0	Kirkcudbright ..	21·7
		Aberdeen	15·1	Renfrew........	7·9		
Southern	15·0	Kincardine....	14·7	Ayr................	9·4	Wigtown	15·2

IV.—*Divisional Table:*—MARRIAGES, BIRTHS, *and* DEATHS *Registered in the Quarter ended* 30*th September*, 1868.

1 DIVISIONS. (Scotland)	2 AREA in Statute Acres.	3 POPULATION, 1861. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
SCOTLAND .... *Totals*	19,639,377	3,062,294	4,704	28,393	16,662
I. Northern	2,261,622	130,422	69	839	392
II. North-Western........	4,739,876	167,329	88	1,229	589
III. North-Eastern	2,429,594	366,783	442	3,153	1,496
IV. East Midland	2,790,492	523,822	650	4,702	2,682
V. West Midland	2,693,176	242,507	314	2,002	1,192
VI. South-Western........	1,462,397	1,008,253	2,161	10,871	6,906
VII. South-Eastern	1,192,524	408,962	750	3,931	2,459
VIII. Southern	2,069,696	214,216	230	1,666	946

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 30*th June*, 1868; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 30*th September*, 1868.

COUNTRIES.	[000's omitted]. Area in Statute Acres.	[000's omitted]. Population, 1861. (*Persons.*)	Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	20,066,	45,226	2·3	192,467	9·6	130,502	6·5
Scotland	19,639,	3,062,	5,660	1·8	28,393	9·3	16,662	5·4
Ireland	20,323,	5,799,	5,147	·8	34,362	5·9	18,600	3·2
GREAT BRITAIN AND IRELAND	77,287,	28,927,	56,033	1·9	255,222	8·8	165,764	5·7

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios are much under those of England and Scotland.—ED. *S. J.*

le of United Kingdom, 1868-67-66.—*Distribution of* Exports *from United Kingdom, ccording to the Declared Real Value of the Exports; and the Computed Real Value* (*Ex-uty*) *of* Imports *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	**First Six Months.**					
	1868.		1867.		1866.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—Foreign Countries:	£	£	£	£	£	£
rthern Europe; viz., Russia, Sweden, orway, Denmark & Iceland, & Heligoland	8,487,	2,448,	9,017,	2,627,	7,329,	2,379,
ntral Europe; viz., Prussia, Germany, he Hanse Towns, Holland, and Belgium	15,689,	18,145,	17,229,	16,217,	16,257,	13,502,
stern Europe; viz., France, Portugal with Azores, Madeira, &c.), and Spain with Gibraltar and Canaries)	20,244,	7,715,	20,973,	8,669,	23,249,	8,142,
uthern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,411,	3,140,	2,193,	3,693,	3,020,	3,760,
vant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	12,239,	6,635,	11,074,	7,321,	10,619,	8,944,
rthern Africa; viz., Tripoli, Tunis, Algeria and Morocco	131,	73,	133,	158,	205,	171,
estern Africa	705,	446,	605,	405,	487,	289,
astern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	—	96,	14,	59,	66,	132,
dian Seas, Siam, Sumatra, Java, Philippines; other Islands	769,	901,	315,	1,282,	325,	1,243,
uth Sea Islands	30,	15,	8,	20,	44,	100,
ina, including **Hong Kong**	4,650,	4,498,	4,569,	3,894,	5,831,	4,817,
nited States of America	29,559,	10,541,	25,780,	11,951,	30,839,	15,228,
exico and Central America	453,	508,	479,	380,	293,	626,
oreign West Indies and Hayti	1,632,	1,361,	2,545,	1,383,	1,321,	1,478,
outh America (Northern), New Granada, Venezuela, and Ecuador	592,	1,241,	653,	1,259,	941,	1,609,
" **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	3,598,	1,242,	3,473,	2,238,	2,685,	1,147,
" **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	4,735,	3,455,	4,334,	4,760,	5,096,	5,851,
hale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	22,	6,	16,	1,	9,	9,
Total—Foreign Countries	106,946,	62,466,	103,410,	66,317,	108,616,	69,427,
II.—British Possessions:						
ritish India, Ceylon, and Singapore	10,665,	12,111,	10,141,	11,542,	18,520,	10,842,
ustral. Cols.—N. So. W., Vict., and Queensld.	3,672,	3,738,	5,141,	2,905,	4,679,	4,566,
" " So. Aus., W. Aus., Tasm., and N. Zealand	1,528,	1,518,	2,219,	1,392,	1,545,	2,203,
ritish North America	835,	2,020,	802,	2,393,	820,	2,969,
" W. Indies with Btsh. Guiana & Honduras	3,222,	1,262,	2,642,	1,280,	2,719,	1,385,
ape and Natal	1,132,	715,	1,178,	1,014,	953,	589,
rt. W. Co. of Af., Ascension and St. Helena	187,	272,	186,	330,	240,	311,
auritius	756,	240,	646,	208,	1,054,	302,
hannel Islands	190,	259,	193,	232,	232,	264,
Total—British Possessions	21,587,	22,135,	23,148,	21,296,	30,762,	23,431,
General Total £	128,533,	84,601,	126,558,	87,613,	139,378,	92,858,

IMPORTS.—(United Kingdom.)—**First Eight Months** (*January—August*), **1868-67-66-65-64.**—*Computed Real Value* (*Ex-duty*), *at Port of Entry* (*and therefore including Freight and Importer's Profit*), *of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Eight Months.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
RAW MATLS.—*Textile.*	Cotton Wool	37,306,	39,753,	58,205,	29,944,	50,504,
	Wool (Sheep's)..	10,410,	12,747,	12,559,	10,388,	10,789,
	Silk	10,977,	10,099,	9,168,	9,541,	7,434,
	Flax	3,079,	2,544,	3,005,	3,048,	3,856,
	Hemp	2,106,	1,623,	2,182,	1,546,	2,934,
	Indigo	2,378,	2,130,	1,851,	1,757,	1,777,
		66,256,	68,896,	86,970,	56,224,	77,294,
" " *Various.*	Hides	1,748,	1,642,	1,979,	1,634,	1,604,
	Oils	2,325,	2,585,	2,532,	2,206,	1,849,
	Metals	2,905,	2,488,	3,218,	2,724,	2,826,
	Tallow	834,	749,	1,233,	851,	711,
	Timber...............	4,274,	3,405,	4,564,	6,213,	5,523,
		12,086,	10,869,	13,526,	13,628,	12,515,
" " *Agrcltl.*	Guano	1,486,	1,164,	921,	1,686,	756,
	Seeds	2,213,	1,587,	1,694,	2,066,	2,138,
		3,699,	2,751,	2,615,	3,752,	2,894,
TROPICAL &c., PRODUCE.	Tea	5,460,	4,942,	6,091,	5,287,	5,435,
	Coffee	3,244,	2,679,	2,457,	2,566,	2,254,
	Sugar & Molasses	9,950,	9,743,	8,756,	8,341,	11,336,
	Tobacco	973,	917,	1,229,	1,514,	1,390,
	Rice	1,469,	504,	449,	357,	588,
	Fruits	784,	265,	89,	201,	115,
	Wines	3,756,	3,202,	3,335,	2,456,	3,731,
	Spirits	1,377,	1,209,	1,294,	1,011,	1,544,
		27,010,	23,461,	23,700,	21,733,	26,393,
FOOD	Grain and Meal.	27,193,	25,581,	18,898,	11,168,	12,601,
	Provisions	7,646,	5,759,	6,210,	6,061,	5,753,
		34,839,	31,340,	25,108,	17,229,	18,354,
Remainder of Enumerated Articles		8,672,	4,131,	3,893,	3,104,	3,562,
TOTAL ENUMERATED IMPORTS		152,562,	141,448,	155,812,	115,670,	141,012,
Add for UNENUMERATED IMPORTS (say)		38,140,	37,112,	38,953,	18,917,	35,253,
TOTAL IMPORTS		180,702,	178,560,	194,765,	144,587,	176,265,

EXPORTS.—(United Kingdom.)—**First Nine Months** (*January—September*) **1868-67-66-65-64.**—*Declared Real Value, at Port of Shipment, of Articles of* BRITISH *and* IRISH *Produce and Manufactures Exported from United Kingdom.*

(First Nine Months.) • [000's omitted.] BRITISH PRODUCE, &c., EXPORTED.		1868.	1867.	1866.	1865.	1864.
		£	£	£	£	£
MANFRS.—*Textile.*	Cotton Manufactures ..	39,006,	42,123,	46,100,	33,628,	35,648,
	,, Yarn	10,989,	10,923,	9,927,	7,311,	7,278,
	Woollen Manufactures	14,834,	15,991,	16,790,	14,484,	14,915,
	,, Yarn	4,927,	4,491,	3,290,	3,984,	4,214,
	Silk Manufactures........	1,653,	1,159,	1,349,	1,445,	1,605,
	,, Yarn	159,	146,	173,	214,	199,
	Linen Manufactures	5,307,	5,781,	7,260,	6,464,	6,123,
	,, Yarn	1,735,	1,917,	1,745,	1,806,	2,387,
		78,610,	82,531,	86,634,	69,336,	72,369,
Sewed.	Apparel	1,583,	1,588,	2,046,	1,831,	1,801,
	Haberdy. and Mllnry.	3,423,	3,541,	4,308,	3,644,	3,793,
		5,006,	5,129,	6,354,	5,475,	5,594,
METALS	Hardware	2,784,	2,934,	3,310,	3,138,	3,082,
	Machinery.....................	3,450,	3,748,	3,354,	3,862,	3,363,
	Iron	11,149,	11,586,	11,289,	9,666,	10,393,
	Copper and Brass........	2,326,	2,296,	2,203,	2,389,	2,677,
	Lead and Tin	2,987,	2,639,	2,559,	2,058,	2,241,
	Coals and Culm	4,096,	4,034,	3,859,	3,306,	3,100,
		26,792,	27,237,	26,574,	24,419,	24,856,
Ceramic Manufcts.	Earthenware and Glass	1,826,	1,838,	1,821,	1,612,	1,620,
Indigenous Mnfrs.	Beer and Ale................	1,387,	1,455,	1,153,	1,590,	1,283,
	Butter	194,	195,	265,	216,	234,
	Cheese	77,	88,	126,	74,	113,
	Candles	162,	150,	176,	77,	100,
	Salt	383,	358,	298,	194,	225,
	Spirits	128,	123,	117,	205,	447,
	Soda	1,147,	1,229,	1,163,	804,	686,
		3,478,	3,598,	3,698,	3,160,	3,088,
Various Manufcts.	Books, Printed	496,	442,	439,	359,	327,
	Furniture	140,	146,	175,	220,	185,
	Leather Manufactures	1,759,	1,349,	1,423,	1,834,	1,756,
	Soap	192,	217,	170,	133,	178,
	Plate and Watches	277,	299,	308,	304,	302,
	Stationery	304,	283,	279,	291,	253,
		3,168,	2,736,	2,794,	3,141,	3,001,
Remainder of Enumerated Articles		8,121,	7,870,	7,789,	7,085,	7,238,
Unenumerated Articles................................		6,703,	6,263,	6,273,	5,490,	5,638,
TOTAL EXPORTS....................		133,704,	137,202,	141,937,	119,717,	123,404,

SHIPPING. — FOREIGN TRADE. — (United Kingdom.) — **First Nine Months** (*January — September*), **1868-67-66-65.**—*Vessels Entered and Cleared and Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Nine Months.)	1868.			1867.		1866.		1865.	
ENTERED :—	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
Vessels belonging to—	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	434	139,	320	382	132,	350	123,	379	124,
Sweden	997	174,	174	902	159,	858	158,	798	140,
Norway	3,406	808,	237	3,047	701,	2,984	696,	2,751	622,
Denmark	1,768	201,	113	1,753	200,	1,669	179,	1,652	169,
Prussia and Ger. Sts.	3,110	833,	267	2,822	723,	3,197	768,	2,817	645,
Holland and Belgium	1,445	206,	142	1,391	187,	1,624	219,	1,550	211,
France	1,736	168,	96	1,852	165,	2,297	212,	2,027	193,
Spain and Portugal	409	141,	345	369	123,	291	90,	325	102,
Italy & other Eupn. Sts.	608	217,	357	698	223,	915	267,	815	283,
United States	392	383,	977	319	328,	342	357,	229	246,
All other States	11	4,	364	7	3,	12	4,	21	6,
	14,316	3,274,	229	13,542	2,944,	14,539	3,073,	13,544	2,703,
United Kingdm. & Depds.	19,940	6,968,	349	19,819	6,891,	20,275	6,837,	18,474	5,889,
Totals Entered	34,256	10,242,	298	33,361	9,835,	34,814	9,910,	32,018	8,592,
CLEARED :—									
Russia	341	120,	352	321	115,	315	115,	323	112,
Sweden	890	144,	162	840	137,	788	142,	681	111,
Norway	1,924	380,	198	1,695	335,	1,654	323,	1,444	274,
Denmark	1,961	215,	110	1,994	219,	2,689	179,	1,807	185,
Prussia and Ger. Sts.	4,447	1,050,	238	4,152	906,	4,109	847,	3,932	786,
Holland and Belgium	1,734	274,	157	1,552	246,	1,565	255,	1,765	270,
France	3,117	338,	108	3,357	367,	3,123	329,	3,069	311,
Spain and Portugal	381	137,	360	368	122,	294	92,	329	100,
Italy & other Eupn. Sts.	734	281,	383	745	257,	991	318,	968	307,
United States	503	470,	934	424	418,	413	411,	258	261,
All other States	13	4,	308	10	3,	21	8,	31	7,
	16,045	3,413,	213	15,458	3,125,	14,962	3,019,	14,607	2,724,
United Kingdm. & Depds.	24,768	8,323,	336	23,824	7,991,	23,054	7,628,	22,198	6,861,
Totals Cleared	40,813	11,736,	288	39,282	11,116,	38,016	10,647,	36,805	9,585,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the* **First Nine Months** (*January—September*), **1868-67-66.**

[000's omitted.]

(First Nine Months.)	1868.		1867.		1866.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	5,237,	—	3,864,	—	4,639,	1,
So. Amca. and W. Indies	1,198,	2,395,	2,134,	3,804,	1,694,	3,231,
United States and Cal.	6,812,	1,801,	4,520,	1,232,	7,847,	1,452,
	13,247,	4,196,	10,518,	5,036,	14,180,	4,684,
France	268,	814,	380,	682,	2,637,	2,073,
Hanse Towns, Holl. & Belg.	47,	170,	80,	193,	759,	865,
Prtgl., Spain, and Gbrltr.	442,	85,	75,	88,	477,	115,
Mlta., Trky., and Egypt	40,	91,	120,	60,	247,	9,
China	—	—	—	—	—	—
West Coast of Africa	72,	6,	110,	2,	86,	16,
All other Countries....	481,	565,	420,	61,	1,417,	561,
Totals Imported ...	14,597,	5,927,	11,703,	6,122,	19,803,	8,323,
Exported to:—						
France	6,059,	1,317,	3,515,	1,301,	7,929,	1,504,
Hanse Towns, Holl. & Belg.	134,	3,287,	261,	2,582,	1,022,	1,809,
Prtgl., Spain, and Gbrltr.	588,	1,	353,	1,	158,	107,
	6,781,	4,605,	4,129,	3,884,	9,109,	3,420,
Ind. and China (viâ Egypt)	844,	723,	75,	540,	345,	2,443,
Danish West Indies	—	—	—	—	—	—
United States	113,	—	49,	—	1,005,	—
South Africa	63,	—	22,	—	5,	—
Mauritius	—	—	—	—	—	—
Brazil	931,	49,	31,	71,	816,	64,
All other Countries....	640,	180,	379,	89,	456,	850,
Totals Exported....	9,372,	5,557,	4,685,	4,584,	11,736,	6,777,
Excess of *Imports*	5,225,	370,	7,018,	1,538,	8,067,	1,546,
" Exports	—	—	—	—	—	—

REVENUE.—(UNITED KINGDOM.)—30TH SEPTEMBER, 1868-67-66-65.

Net Produce in YEARS *and* QUARTERS *ended* 30*th* SEPT., 1868-67-66-65.

[000's omitted.]

QUARTERS, ended 30th Sept.	1868.	1867.	1868.		Corresponding Quarters.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	5,488,	5,502,	14,	—	5,541,	5,299,
Excise	4,184,	4,300,	116,	—	4,520,	4,332,
Stamps	2,084,	2,200,	116,	—	2,075,	2,272,
Taxes	300,	272,	—	28,	243,	242,
Post Office	1,190,	1,200,	10,	—	1,160,	1,145,
	13,246,	13,474,	256,	28,	13,539,	13,290,
Property Tax	10,60,	648,	—	412,	633,	815,
	14,306,	14,122,	256,	440,	14,172,	14,095,
Crown Lands	73,	72,	—	1,	71,	70,
Miscellaneous	740,	720,	—	20,	953,	297,
Totals	15,119,	14,914,	256,	461,	15,196,	14,462,
			NET INCR. £205,265			

YEARS, ended 30th Sept.	1868.	1867.	1868.		Corresponding Quarters.	
			Less.	More.	1866.	1865.
	£	£	£	£	£	£
Customs	22,590,	22,492,	—	98,	21,621,	21,964,
Excise	19,875,	20,334,	459,	—	20,255,	19,539,
Stamps	9,250,	9,609,	359,	—	9,356,	9,486,
Taxes	3,507,	3,525,	18,	—	3,422,	3,341,
Post Office	4,590,	4,590,	—	—	4,365,	4,210,
	59,812,	60,550,	836,	98,	59,019,	58,545,
Property Tax	7,281,	5,695,	—	1,586,	5,595,	7,732,
	67,093,	66,245,	836,	1,684,	64,614,	66,277,
Crown Lands	347,	332,	—	15,	322,	312,
Miscellaneous	2,867,	2,893,	26,	—	3,524,	2,670,
Totals	70,307,	69,470,	862,	1,699,	68,460,	69,259,
			NET INCR. £837,091			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 30TH SEPT., 1868:—

An Account showing the REVENUE *and other* RECEIPTS *of the* QUARTER *ended* 30*th September*, 1868; *the* APPLICATION *of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.*

Received:—

		£
Surplus Balance beyond the Charge of the *Consolidated Fund* for the Quarter ended 30th June, 1868, viz.:—		
Great Britain	—	
Ireland	£728,506	
		728,506
Income received, as shown in Account I		15,119,005
Amount raised by Exchequer Bonds, issued per Act 31st and 32nd Victoria, cap. 27		1,000,000
Amount raised on Account of Fortifications, &c., per Acts 28th and 29th Victoria, cap. 61, and 30th and 31st Victoria, cap. 145		225,000
Amount received in repayment of Advances for Public Works, &c.		359,713
Ditto, for New Courts of Justice		4,000
		£17,436,224
Balance, being the Deficiency on 30th September, 1868, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends and other charges payable in the Quarter to 31st December, 1868		3,007,408
		£20,443,632

Paid:—

		£
Deficiency of the Income of the Consolidated Fund in Great Britain in the Quarter to 30th June, 1868, for the Charge of the Consolidated Fund in Great Britain for that Quarter (as shown in preceding account)		4,129,639
Amount applied out of the Income to *Supply Services*		9,109,230
" advanced for New Courts of Justice		15,000
Charge of the *Consolidated Fund* for the Quarter ended 30th September, 1868, viz.:—		
Interest of the Permanent Debt	£5,030,727	
Terminable Annuities	1,063,324	
Interest of Exchequer Bonds	26,750	
" " Bills	21,553	
" Advances on Account of Deficiency	2,850	
The Civil List	101,383	
Other Charges on Consolidated Fund	575,921	
Advances for Public Works, &c.	221,295	
		7,043,803
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th September, 1868		145,960
		£20,443,632

BRITISH CORN.—*Gazette Average Prices* (England and Wales), *Third Quarter of* 1868.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on a Saturday, 1868.	Weekly Average. (Per Impl. Quarter.) Wheat.		Barley.		Oats.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
July 4	67	7	39	5	29	5
„ 11	66	7	37	4	29	8
„ 18	65	–	37	4	30	11
„ 25	62	9	35	8	31	4
Average for July	65	5	37	5	30	4
August 1	61	1	39	3	30	5
„ 8	57	11	41	4	29	9
„ 15	55	–	43	–	30	4
„ 22	57	1	41	4	29	2
„ 29	56	11	41	7	29	3
Average for August	57	7	41	1	29	9
Sept. 5	55	3	42	9	28	10
„ 12	55	5	43	8	28	3
„ 19	54	4	44	–	28	5
„ 26	53	7	44	4	26	8
Average for September	54	7	43	8	28	–
Average for the quarter	59	1	40	9	29	5

RAILWAYS.—Prices, *July—September;—and* Traffic, *January—September*, 1868.

[Abstract from "Herepath's Journal" and the "Times."]

Total Capital Expended Mlns.	Railway.	For the (£100). Price on 1st Sept.	1st Aug.	1st July.	Miles Open. '68.	'67.	Total Traffic. First 39 Weeks. (000's omitted.) '68.	'67.	Traffic pr. Mile pr. Wk. 39 Weeks. '68.	'67.	Dividends per Cent. for Half Years. 30 June, '68.	31 Dec. '67.	30 Jun. '67.
£					No.	No.	£	£	£	£	*s.* *d.*	*s.* *d.*	*s.* *d.*
56,9	Lond.&N.Westn.	113¼	116¾	114	1,372	1,344	4,760,	4,768,	95	100	52 6	67 6	52 6
49,5	Great Western	49¼	51¾	49¾	1,386	1,344	2,993,	2,990,	64	61	12 6	15 –	12 6
20,8	„ Northern	105½	107	97	487	487	1,565,	1,537,	86	91	42 6	75 –	45 –
28,2	„ Eastern	37	40½	36	728	728	1,447,	1,381,	55	53	Nil	Nil	Nil
17,2	Brighton	51½	54¼	51½	349	335	958,	927,	78	83	„	„	„
20,1	South-Eastern	74	77½	73½	346	330	1,099,	1,071,	90	95	22 6	40 –	20 –
16,9	„ Western	89	93	—	503	503	—	—	60	59	40 –	52 6	37 6
209,6		74¼	77¼	70	5,171	5,071	12,822,	12,679,	75	77	24 3	35 8	23 11
32,9	Midland	105¼	106¾	105¾	768	703	2,162,	2,094,	74	84	50 –	55 –	55 –
22,9	Lancsh. and York.	126½	130½	128½	411	403	1,924,	1,857,	119	123	67 6	65 0	65 –
15,8	Sheffield and Man.	44	44	42	251	251	795,	813,	90	92	Nil	20 –	10 –
39,9	North-Eastern	100	105	103½	1,246	1,229	2,806,	2,804,	62	65	45 –	60 –	50 –
111,5		94	96¼	95	2,676	2,586	7,687,	7,568,	86	91	40 7	50 –	45 –
21,9	Caledonian	76	75½	71½	1,398	1,381	2,543,	2,475,	52	51	15 –	25 –	52 6
6,2	Gt.S.&Wn.Irlnd.	—	98	—	420	420	—	—	27	26	50 –	45 –	50 –
349,2	*Gen. aver.*	80	84½	79⅜	9,665	9,458	23,052,	22,717,	73	75	30 7	40 –	34 7

Consols.—Money Prices, 1*st September*, 93¾ to ⅞.—1*st August*, 94⅜.—1*st July*, 94⅜ to ⅝.

Exchequer Bills.—1*st September*, 16*s.* to 20*s.* pm.—1*st August*, 12*s.* to 17*s.* pm.—1*st July*, 15*s.* to 19*s.* pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* THIRD QUARTER (*July—Sept.*) *of* **1868.**

[0,000's omitted.]

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
£		£	£	£	£	
Mlns.	1868.	Mlns.	Mlns.	Mlns.	Mlns.	1867. Per ann.
36,66	July 1	11,02	3,98	21,66	24,77	25 July 2 p. ct.
36,39	„ 8	11,02	3,98	21,39	24,72	
35,97	„ 15	11,02	3,98	20,97	24,88	
35,81	„ 22	11,02	3,98	20,81	24,49	
35,75	„ 29	11,02	3,98	20,75	24,33	
35,22	Aug. 5	11,02	3,98	20,21	24,97	
34,63	„ 12	11,02	3,98	19,63	24,54	
34,64	„ 19	11,02	3,98	19,64	24,25	
34,62	„ 26	11,02	3,98	19,62	23,96	
34,73	Sept. 2	11,02	3,98	19,73	24,31	
34,62	„ 9	11,02	3,98	19,62	23,88	
34,61	„ 16	11,02	3,98	19,61	23,64	
34,77	„ 23	11,02	3,98	19,77	23,57	
34,90	„ 30	11,02	3,98	19,90	24,40	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
£	£	£	£	£		£	£	£	£	£
Mlns.	Mlns.	Mlns.	Mlns.	Mlns.	1868.	Mlns.	Mlns.	Mlns.	Mlns.	Mlns.
14,55	3,12	7,02	21,50	,45	July 1	13,21	20,45	11,89	1,09	46,65
14,55	3,25	4,40	23,16	,50	„ 8	14,61	18,41	11,67	1,66	45,86
14,55	3,28	3,36	22,08	,56	„ 15	14,61	16,40	11,09	1,22	43,83
14,55	3,30	3,14	22,08	,52	„ 22	14,61	16,40	11,32	1,26	43,60
14,55	3,31	3,50	21,45	,50	„ 29	14,61	16,07	11,42	1,22	43,32
14,55	3,34	3,38	20,67	,55	Aug. 5	14,79	16,29	10,25	1,15	42,49
14,55	3,34	3,09	20,21	,61	„ 12	14,39	16,15	10,09	1,17	41,81
14,55	3,35	2,83	20,17	,51	„ 19	13,79	16,17	10,39	1,10	41,45
14,55	3,33	2,98	19,84	,50	„ 26	13,79	15,60	10,66	1,16	41,20
14,55	3,61	3,27	19,58	,55	Sept. 2	13,79	16,24	10,42	1,12	41,57
14,55	3,61	3,71	19,42	,56	„ 9	13,79	16,21	10,74	1,12	41,87
14,55	3,61	3,97	19,31	,59	„ 16	13,79	16,12	10,97	1,16	42,04
14,55	3,63	5,19	19,20	,60	„ 23	14,79	16,00	11,20	1,20	43,18
14,55	3,62	5,38	18,74	,62	„ 30	14,94	16,37	10,50	1,10	42,92

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* THIRD QUARTER (*July–September*) *of* 1868; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

England and Wales.					Scotland.				Ireland.	
DATES. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,98).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,72).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,75).	£5 and upwards.	Under £5.
1868.	£	£	£	£	1868.	£	£	£	£	£
July 4	81,12	2,63	2,21	4,85						
„ 11	66,93	2,63	2,23	4,86						
„ 18	77,79	2,61	2,20	4,81	July 18	1,74	2,82	4,56	3,08	2,51
„ 25	63,42	2,59	2,17	4,76						
Aug. 1	53,78	2,56	2,16	4,72						
„ 8	73,66	2,55	2,16	4,72						
„ 15	60,91	2,54	2,15	4,69	Aug. 15	1,63	2,78	4,41	2,99	2,53
„ 22	72,39	2,54	2,17	4,71						
„ 29	55,36	2,57	2,19	4,76						
Sept. 5	68,58	2,62	2,21	4,83						
„ 12	56,47	2,67	2,24	4,90	Sept. 12	1,61	2,83	4,44	3,00	2,73
„ 19	65,45	2,69	2,26	4,96						
„ 26	53,84	2,71	2,27	4,98						

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg, Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON—*collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13
	Paris.				Hamburg.				Calcutta.			
DATES.	London on Paris. 3 m.d.	Bullion as arbitrated. Agnst. Engd.	Bullion as arbitrated. For Engd.	Prem. or Dis. on Gold per mille.	London on Hambg. 3 m.d.	Bullion as arbitrated. Agnst. Engd.	Bullion as arbitrated. For Engd.	New York. 60 d. s.	India Council 60 d.s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. s.	Sydney. 30 d. s.
1868.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	*d.*	*d.*	*d.*	pr. ct.
July 4 ..	25·37½	—	—	par.	13·10¼	—	—	110¼	23⅛	23⅛	53	½ pm.
„ 18 ..	·35	—	·1	„	·10	—	—	„ ⅜	„ ¼	„ ⅜	54½	„
Aug. 1 ..	·32½	—	—	„	„	—	—	„ ¼	„	„	„ ¾	„
„ 18 ..	·37½	·2	—	„	„ ¾	—	—	109½	23	„ ¼	„ ¼	1½ pm.
Sept. 5 ..	·42½	—	·2	„	·11	—	—	„ ⅛	„ ¼	„ 5/16	53¼	„
„ 19 ..	„	—	„	„	„	—	—	„ ⅛	„ ⅜	„ ½	54½	„

INDEX TO VOL. XXXI,

YEAR 1868.

PAGE

AFRICA, its natural and geographical hindrances to civilisation . . 25
on the trade with the coloured races of (see *Hamilton*) . . 25
AGRICULTURE of England, changes in, during the last three centuries 127–8
AGRICULTURE. *Agriculture in France* [from the "Pall Mall Gazette"] 234

Evidence from the Report of the Commissions of Inquiry as to the causes of suffering: want of labour from increase of the army; want of capital, &c., and the excessive subdivision of landed property, though the latter is, in some districts, considered favourable to production; religion and simplicity of manners on the wane; decrease in the number of legitimate children, &c. 234–6

AGRICULTURAL LABOURERS (good) more really skilled workmen than the artisan 309
AGRICULTURAL STATISTICS OF ENGLAND, Topographical Classification of, for 1867, illustrated [with diagrams showing percentages of corn-cropped, green-cropped, and permanent pasture lands] . . 222
of the United Kingdom (see *Caird*) 127
of Great Britain.
—— *table* of number of occupiers of land and owners of live stock 249
—— acreage of crops and grass in 1867 250–58
AMERICA. UNITED STATES. *Labour and Capital in America* [from the "New York Commercial Chronicle"] 337

Partisan adoption by Congress of the reduction of the hours of labour . . 337
Strike of the bricklayers for eight hours' work and trade rules limiting amount of daily production 338
Interests of the community and of the working men themselves on the side of the employers 338
Strikes of the plasterers and miners of the "United States," and their suicidal effects 338–9

UNITED STATES of, on the Finances of, 1861-67 (see *Courtney*) . 164
—— see *Taxation* and Wages, *Trade*.
—— facts as to the disorganised condition of the Southern . 84–5
ANNUITIES (POST OFFICE LIFE) see *Assurance* (Life).
ARBITRATION BOARDS, establishment of, in France and England . 379–80
ASSURANCE (LIFE). *Post Office Annuities and Assurances* [from the "Pall Mall Gazette"] 481

Amounts received for immediate and deferred annuities 482
The development of the annuity scheme slow, but not indicative of any popular distrust of the Post Office 482

BANK OF ENGLAND,
weekly return of the issue and banking departments:

Fourth quarter, 1867 . 119 | Second quarter, 1868 . 371
First „ 1868 . 262 | Third „ . 501

PAGE

Banks, London clearing and amounts of promissory notes in circulation (in England and Wales, Scotland and Ireland):

Fourth quarter, 1867	120	Second quarter, 1868	372
First „ 1868	263	Third „	502

Banks (Country), losses of, from the accumulation of light gold in their hands 434
Bankrupts' Estates, discreditable system of liquidation of, during 1867 88–9
Beet-root, advantages of the cultivation of, for sugar . . . 143
Bible, English translation of, no alterations of acknowledged errors adopted by the University Press (Cambridge) 2
Bikélas (Demétrius). *Statistics of the Kingdom of Greece* . . 265

Object of the paper to show the progress of civilisation since the establishment of the Hellenic kingdom 266
Progress of political economy and statistics in Greece . . . 266–7
Territory: area, cultivation, division of the country, &c. . . . 267–8
Population: censuses from 1834 to 1861, increase during the period, proportion of females, and of agricultural and commercial population, mortality, &c. 268–9
Towns: only nine not in ruins at the period of liberation, construction of new towns since, &c. 270
Army and navy: effective force, recruits, cost, crippled state of navy, &c. . 271
Public functionaries: excessive number of civil officers and place hunters . 272
Public instruction: extension of schools since 1830, and their number in 1866, and number of students 273
Publications; metric system of weights and measures . . . 274
Products of the soil: agriculture, causes of its slow progress, tithe paid in kind, minute subdivision of land, brigandage, &c. 275–6
—— cereal crops, vineyards, olive oils, silk, tobacco, cotton and timber, great increase since 1830 276–8
—— breeding of stock; mines and minerals: their revenue. . . . 279
Commerce and industry: greatly developed by the Greek grain merchants, low and simple import and export duties, amount of exports and imports, &c. 280–81
Commercial Joint Stock Companies' National Bank: mercantile navy, tonnage, lighthouses, &c. 282–3
Means of communication: want of roads and railroads, postal service and telegraphy 284–5
Public debts: amounts of loans since 1824, &c. 285–7
Finance: annual deficits in the budgets, arrears due by public debtors . 287–9
Progress of Greece in the last thirty-five years, difficulties in emerging from serfdom, &c. 289–90
Tables: municipal income of Athens, 1867 291
—— pursuits of population, details of cultivation, forests, live stock . . 292–3
—— general and special trade, roads 294–5
—— income and expenditure, and revenue for 1863 and 1866 . . 296–8

Births in European countries, ratios of, to population, proportion of sexes, illegitimate births, &c. in each country 151–4
ditto, *tables* of, distinguishing sexes, proportion of to deaths . 161–3
Illegitimate, rate per cent. in Scotland:

Quarter Dec., 1867	108	Quarter June, 1868	361
„ March, 1868	247	„ Sept., „	491

British Association for the Advancement of Science. (Thirty-Eighth Meeting, at Norwich.) Section F, Economic Science and Statistics. List of papers read, August, 1868 465
Section F. Opening address of the president (see *S. Brown*) . 373
Brown (Samuel). *Report on the Sixth International Statistical Congress held at Florence, from 29th September to 5th October, 1867* 11

The object of congresses, the collection of national statistics, which are on too large a scale for individual inquirers 11
Gratitude due to M. Quetelet for originating the statistical congresses in 1853 11
Results of the congresses in the improvement of government statistics, especially those of Belgium 12
Comparative numbers of members at each of the six congresses, 1853-67 . 13
Efficient labours of Dr. Maestri in preparing the programme of subjects to be discussed 13

PAGE

Brown (Samuel). *Report on Sixth International Congress—contd.*

Lists of the foreign delegates to the congress 14–16
Lists of subjects discussed in the sections, and names of the reporters . 17
Resolutions adopted on hydrography, weights and measures, and supply of cattle 17–19
—— ditto on meteorology, on communes, &c. 19
Notice of the report on unity of coinage and weights and measures . . 20
Suggestions of the sections on fine arts, land survey, judicial and army and navy medical statistics 21
—— ditto on the census, uniformity in statistical language, and normal tables of life assurance 22
Proposition of M. Quetelet for a special section to examine statistical subjects on the theory of probabilities 22
Attentions, receptions, &c., to the foreign delegates, &c. 23

Brown (Samuel). *On the Comparative Population of European States* 146

M. Quetelet's proposal for making a compilation of facts relating to the population of different countries 146
The results published in the "Bulletin de la Commission Centrale de Statistique" 147
Population in general: 1,015 females to 1,000 males, and about 8½ acres to each inhabitant in Europe 147–8
— females less in number than males in Italy, Belgium, Roman States and Greece 148
—— density of population least in Norway and the United States, and greatest in Belgium 148
—— Great Britain: decrease of population in Ireland, 1841-61 (2½ millions) . 149
—— ditto, increase of large towns and their present populations . . 149
—— comparative population of large towns to total population in European countries 150
—— recent changes in the extent of the populations of European countries . 150–51
Births: ratio of births to population in each country, and actual numbers in census year 1860 151–2
—— proportion of sexes, large excess of males among stillborn, but proportion of males less in illegitimate than in legitimate births . . 152–3
—— proportion of illegitimate births in each country 153
—— rate of births at the different seasons 154
Deaths: variations in average rate per population 154–5
—— ratio of births to deaths, showing increase of population . . 155
—— mortality according to sex 155–6
—— seasons, deaths by months 156
—— tables of mortality for this and other countries, probable duration of life, &c. 157
Marriages: proportion of, to population, and in different seasons . . 158
Rates of marriages, births and deaths to population in European countries . 159
Tables. Population, territorial extent, proportion of females and extent of land to each inhabitant in each State 160
—— births, distinguishing sexes in legitimate, illegitimate, and stillborn . 161
—— proportion of male births, of deaths, of births to deaths, and of marriages 162–3

Brown (Samuel). *Opening Address as President of Section F (Economic Science and Statistics) of the British Association, at Norwich, August,* 1868 373

Technical education: impulse given to the question by the Exhibition of 1851, and report of the committee on the means for promoting scientific education in our general schools 373–5
—— good effects of the pecuniary rewards and medals given at the School of Mines in stimulating the working classes 376
—— Mr. Whitworth's noble gift of thirty scholarships of 100*l*. each . . 376
—— remarkable volume of reports on the Paris Exhibition, by our artizans . 376
—— report of the House of Commons on the subject and probable and beneficial action of the government 377–8
Labour and capital, gradual improvement in opinion as to their non-antagonism 378
—— evils of the coercion and oppression necessarily connected with strikes and necessity for some harmonious scheme between labour and capital to supersede them 379
—— establishment of courts of "Prud-hommes" and arbitration in France since the excesses of 1848, and of boards of arbitration in England . 380
—— benefits of industrial partnerships, as exemplified in the Whitworth Collieries, &c. 380–81
Insurance, objections made to its principles on the application for a charter by the first company (the Equitable) little more than a century ago . 381–2
—— rapid growth of insurance since, especially in New York . . 382
—— theory of Gompertz as to the true law of mortality, &c. . . 382

PAGE

Brown (Samuel). *Opening Address—contd.*

Insurance, estimates of the amounts of fire and marine insurance . . 383-4
Electric telegraphs, extension of the postal system 384
—— probable benefits of the telegraph being placed in the hands of government, with little fear of its being used by it for political purposes . 385-6
Weights and measures: recommendation of the conference at the Paris Universal Exhibition of the metric system, its adoption in this country rendered legal by the Act of 1864, &c. 386-7
—— its ancient use and recommendation of its reintroduction into India . 387
Monetary conferences, recommendation of a single gold standard, and the decimal subdivision of the unit 388
—— proposal of an international gold unit of 10 frs. . . . 389
Statistical congress at Florence: improvements in the form of government comparative statistics, effected by the international congresses . . 390
Benefits of congresses and meetings like those of the Association enumerated 391-2

Bullion and Specie, gold and silver, imported and exported

Jan.-Dec., 1865-67 .	115	Jan.-June, 1866-68 .	367
Jan.-March, 1866-68 .	258	Jan.-Sept., „ .	497

Caird (James) *On the Agricultural Statistics of the United Kingdom* 127

The results of twenty years of free trade, that we receive one-fourth of corn of all kinds, and one-third of our wheat supply from abroad . . 127
Changes in English agriculture during the last three centuries: non-exportation, importation, bounty on exportation, and tax on importation . 127-8
—— greater use of butcher's meat since repeal of corn laws . . . 128
General accuracy of McCulloch's estimate of acreage of crops in 1853, with the actual returns of 1867 128-9
The numbers of live stock not half those estimated in 1836 . . . 129
Changes of the last ten years in Scotland and Ireland: great decrease in corn production, &c. 129
Average yield of wheat per acre supposed to be 32 bushels but not more than 28 130
Statement of the influence of seasons on the amount of yield, showing the enormous loss to the consumer (57,000,000*l.*) of a bad season (1867) compared with a good season (1863) 130-31
Our increased annual expenditure since 1855, balanced by a run of propitious seasons 132
Mode of calculating the yield of our harvest from knowing the entire acreage, and the yield of one typical district 132-3
Annual consumption (20¼ million quarters): *table* showing home produce and rate of ditto; foreign supply, and average prices, 1862-67. . . 133-4
Supposition that each 10 per cent. of additional price on the loaf diminishes consumption 1 per cent. 134
Calculation of foreign supply required for 1867-68 135
The average rate of price found sufficient to draw foreign supplies . . 135-6
Proportions of our foreign supply from each country (one-third of the whole from the United States) 136
Calculations showing how a bad season in one country is balanced by a good one in another 137
Low average yield of France (15½ bushels per acre) compared with England (28 bushels) 138
The cattle plague: how far the losses have been made good . . . 138
Average annual values of our agricultural produce, and proportions of foreign supply, and of our home produce in the three divisions of the kingdom . 139-40
Effect of free trade on British agriculture: great increase in value of stock, barley, and all products other than wheat 140-41
Proportions in England, Scotland, and Ireland, of bread, meat, and potatoes consumed to each person 142
Proportions of population in European States to each acre of potatoes, showing England to be much the least, and Ireland and Prussia the most dependent on them for food 142
Potatoes in Prussia much used for distillation 143
Necessity for a change in our excise laws on the subject . . . 143
Advantages of the cultivation of beet-root for sugar 143
Effects of free trade, the moderation of the price and increase of the supply of food 144
Valuation prices of live stock in England, Scotland, and Ireland . . 144
Estimated compared with ascertained extent of crops, 1850-67 . . 145

Cambridge (University of), form of government and educational system of (see *Heywood*) 1
Carpenters and **Joiners**, Amalgamated Society of, see *Trades' Unions*.

PAGE
CATTLE PLAGUE, its nature and post-mortem appearance, historical notice, &c. 395–6
in Norfolk (see *Smith*) 395
CHURCH OF ENGLAND, *Statistics of, in* 1867 [from the "Times"] . 331
Number of clergymen and curates fifty years ago. 331
Bishop Blomfield's Act of 1837 against pluralities 331
Statement of church livings as at present, as regards patronage and population 332
—— arrangement in classes showing number of clergy to different numbers of population and their incomes, as arranged by the Ecclesiastical Commissioners 333–4
—— numbers in private patronage and their rates of income. . . 334–5

CIRCULATION, aggregate of our metallic and paper (110 millions metallic and 24 millions paper) 446–7
see *Currency, Banks.*
CIVIL SERVICE, some statistics relating to (see *Mann*) . . . 407
tables of scales of salary of clerkships, and of limits of age, &c. . 416–17
CIVIL SERVICE CO-OPERATIVE STORES, principle adopted in . . 97
COINAGE, notice of report on the unity of, at the Statistical Congress at Florence 20
COINAGE (INTERNATIONAL) on the metallic currency of the United Kingdom in reference to an (see *Jevons*) 426
—— obtainable by coining our sovereign 1 per cent. less in weight 427–8
COMMERCE. *General Results of the Commercial and Financial History of* 1867 [from the "Economist"] 76
Continued effects of the crisis of 1866 through 1867 76
Political summary: Europe—South America, war against Paraguay . . 76
—— insurrection in Crete—expedition to Abyssinia—the burden of army expenditure much felt in Europe 77
Deficient harvest—rise in the price of wheat in 1867 compared with 1863-66 . 78
Causes which produced the apparent prosperity of 1863-65 . . . 78-9
Excessive railway legislation of 1862-66 . . . . . 79 (*note*)
Extensive retrenchments in private expenditure from the collapse of 1866 . 79 (*note*)
Comparative wholesale prices in London, 1859-65-67-68, and approximate table of their variations 80–81
Benefits to the industry of the country of the panic and slack trade in rendering useless to trades' unions their strikes and combinations. . 82
Increase of foreign competition with our foreign trade . . . 82
Table showing decrease in our exports of gold and silver to the East from 23 millions, 1863-64, to 3¼ millions, 1867, owing to revival of American cotton imports 83
Remarkable drain of silver currency to India, from France, Germany and North and South America 84
Compulsory and depreciated paper currency in six of the greatest countries of the world, value 600 million sterling 84
Probable effects of the prosperous Indian trade of the last five years in checking the flow of specie thither 84
Existing facts as to the disorganised condition of the Southern United States 84–5
Restoration of the American cotton trade in 1867—average prices and consumption, and imports into England, 1856-67 85–6
Depression and stagnation of the iron trade 86–7
Discredit and exposures of the management of railway companies . . 87–8
Discreditable system of liquidations of bankrupt estates, and scandals of banks and railways during the year. 88-9

CONGRESS (INTERNATIONAL STATISTICAL) at Florence, 1867 (see *S. Brown*) 11
ditto, improvements effected by such congresses 390–92
CORN—
average weekly prices (with monthly and quarterly averages):

Fourth quarter, 1867 .	118	Second quarter, 1868 .	370
First „ 1868 .	261	Third „ .	500

COTTON, supplies of, from Central and Western Africa . . . 32
COTTON TRADE (American), restoration of in 1867, prices and imports 85–6
—— (ditto) effects of its revival in lowering our exports of gold and silver to India from 23 to 3¼ million 83
—— of India, collapse in, in 1867 476

PAGE

COURTNEY (Leonard H.). *On the Finances of the United States of America*, 1861-67 164

Items of the public debt of the States in 1861 (18$\frac{7}{10}$*l.* million sterling) . 164
Decennial increase of population since 1820 165
Articles on which new duties were imposed in the Morrill tariff . . 166
Table showing decline of income following ditto 167
Income and expenditure, 1861 168
Plans of Mr. Chase for meeting the expenditure of 1861-62 in loans and taxes 169-71
—— summary of revenue and expenditure, and estimates for 1862-63 . 172
Account of the Act of February, 1862, the first formally authorising inconvertible paper 173-4
—— doubtful authority of Congress to issue such paper, and consequent distrust of American investments 174-5
Funded debt; its rise from December to May, 1862 (224 million dollars) . 176
Inland Revenue and other Acts, July, 1862; their provisions, &c. . . 176-7
Receipts and expenditure, 1861-62 178
Estimates for 1863-64 178-9
Proposal for the gradual repression of existing banking issues . . 180
Proclamation of President Lincoln for the freedom of all slaves in the rebel States 181
Provisions of the Banking Act of February, 1863 181-4
Receipts and expenditure, 1862-63 185
Estimates for 1863-65 186
Debt, June, 1865, 2,232 million dollars 186
Frustration of the plan of coupon notes 187
Evasion of their obligations by New York (1864) and other States, by the resolution to pay interest and principal of their debts in paper . . 188-9
Receipts and expenditure, 1863-64 190
Difficulties of Mr. Fessenden, and his appeal to the patriotism of the people . 191-2
Estimates for 1864-66 193
Recommendations of Mr. Fessenden relative to a sinking fund . . 194
National bank issues, and successive legislation for loans, &c., 1864-65 . 194-5
Receipts and expenditure, 1864-65, and estimates for 1865-67 . . 196-7
Labours of the revenue commission, and their special recommendations . 198-9
Financial legislation, 1866 199
Receipts and expenditure, 1865-6 200
Debt, June, 1866, 2,783¼ million dollars 200
Mr. McCulloch's recommendations relative to duties and taxation . . 200
Estimate for 1866-68 201
Income and expenditure 1866-67, and estimates for 1867-69 . . . 202-3
Mr. McCulloch's recommendations relative to resumption of specie payments, &c. 203-3
Cash values received for debt created (2,777¼ million dollars debt, 1,886 million cash value received) 204
Actual cost of the war, 2,000 million dollars 204
Means by which the debt was created: losses by inconvertible paper and national bank system 204-5
Sources from which the money received for the debt was obtained . . 205-6
Immediate consequences: tax valuations of capital, 1860-66, in Northern States 206
—— percentage of taxation, and decline of trade and profits, and dividends of manufacturing companies 207-8
Management of the finances since the war: wild and unsuccessful proposal for an immediate redemption of the debt, &c. 208
Future policy: obligation to repay the debt in gold 209
—— estimate of future ordinary expenditure 210
—— recommendation of the adoption of a direct tax, as well as an income tax in lieu of the worst excise and customs' duties 211
Table of duties levied by tariff on classes of imports 212
—— Inland Revenue Acts of the United States 214-17
—— United States' debt, totals bearing interest in gold and in paper, dates when incurred, &c. 218
—— average premiums on gold in each month, 1862-67 . . . 220
—— exports from and imports into the States, 1856-66 . . . 220
—— comparative prices at New York, in each year, 1856-68 . . . 221

CRIME, increase or decrease of different kinds of, 1856-66, summary convictions, &c. 315-16
CRIME. *Discrepant Criminal Statistics* 349

Report from the sub-committee of the Manchester City Council on the discrepancies in the Home Office criminal returns 349-52
The charges made by Mr. Aspland against the efficiency of the Manchester police force, and his statements as to the greater amount of crime in Manchester than in other cities shown to be owing to discrepancies in the modes of making the different returns 350-52
Rogues attracted to Manchester by the "Discharged Prisoners' Aid Society". 352

PAGE

CRIME AND PAUPERISM, increase of material prosperity and moral agents compared with the state of (see *Elliott*) 299
CRIMINALS, large proportion of Irish and Roman Catholics among, in England and the United States 318
  total charges of in 1866 . . . . 317 (*note*)
  tables of convicted, their offences, &c. 327–9
CURRENCY, recommendation of a single gold standard for, and decimal subdivision of the unit 388–9
CURRENCY (GOLD), amount and age of our 438–47
  —— deficiency of weight in our 454–64
CURRENCY (METALLIC), calculation of the amount of our . . . 441–6
  —— of the United Kingdom, on the condition of with reference to the question of International Coinage (see *Jevons*) . . . 426
CURRENCY (SILVER), remarkable drain of, to India from France, Germany, and America 84

DEATH, PUNISHMENT of, ill effects of morbid objection to. . . . 316
DEATHS. See *Mortality*.
DEBT (PUBLIC OR NATIONAL)
  of the United States in 1861, and in various successive periods, up to 1868 (see *Courtney*) 164–204
  ditto, *table* of totals bearing interest, dates when incurred, &c. . 218
DOMESTIC SERVICE, advantages of the practical training of . . . 310

EDUCATION, large sums expended on, since 1854, with small corresponding effect 308, 25
  enormous increase of newspapers, serials, and other means of . 308–9 (*and note*)
  educational system of the University of Cambridge (see *Heywood*) 1
  Public Instruction in Turkey. Supplementary *table* to Mr. Hyde Clarke's Paper (vol. xxx, p. 502) by his Excellency Subhi Bey, 1867 99
  TECHNICAL, impulse given by the Exhibitions, effects of rewards and medals, reports by artisans on the Paris Exhibition, &c. . 373–8
ELLIOTT (J. H.). *The Increase of Material Prosperity and of Moral Agents, compared with the State of Crime and Pauperism* . . 299
    Enumeration of recent collateral improvements in the condition of the people 299–300
    Simultaneous increase of misery accounted for by the improvidence and defective self-control of the poor 300–301
    —— examples of excessive extravagance of the mechanic class . . 301 (*notes*)
    Less excuse for poverty now than formerly, and those suffering from it generally do so deservedly 301
    The Poor Law should be the only national charity, except for the immediate surroundings of each one of us for whom we have special sympathies . 302
    Diseased organisations should not be allowed to extend themselves . . 302
    A large section of evil-doers reformed, not perhaps morally, but by their finding industry more profitable 303
    Many evil doers supposed to be improved by reformatories would probably not have committed a second crime had they escaped detection . 304
    Aliments, the large increase in chiefly appropriated by the working classes . 304
    Wages, large increase in, in various trades, of late years, and increased demand for labour 305–6
    —— hours saved from labour not devoted by the workmen to mental improvement 305
    —— increase of wages of agricultural labourers since 1837, 12 per cent. . 305
    —— admirable though humble virtues of that most patient class of the community. 305–6
    Savings banks, increase in capital of, since 1851 50 per cent.; but thei ncrease more in amount of deposit than in number of depositors . . . 306
    —— not used by the dangerous classes 307
    Emigration, relief of the labour market by; arguments against its being continued at the public cost 307–8
    Education, large sums expended on since 1854, with small amount of corresponding effect 308

PAGE

ELLIOTT (J. H.). *The Increase of Material Prosperity—contd.*
  Education, enormous increase of newspapers, serials, photography, and other means of education . . . . . . 306–9 (and note)
  —— good agricultural labourers more really skilled workmen than the artisan 309
  —— advantages of domestic service and the practical training of the kitchen 310
  —— mode adopted in former times of placing youthful members of the better classes in good families in almost menial positions to learn politeness and refinement.. . . . . 310 (note)
  The small diminution of crime under the enormous increase of wholesome moral and material agencies due to one cause, a sentimental interference with prison discipline and inconsiderate charity 311
  Pauperism, increase of from the pauper being placed in a better position than the self-supporting labourer 312
  Insolvency, necessity for its punishment when wilful and avoidable, some cases of minute dividends on large debts the same as compounding felony . 312–13
  Police, necessity that to be effective it should be more of a restraining and preventive, than of a detective character 313
  —— number of assaults on police officers, 1850-66; necessity that their persons should be considered sacred and protected by extreme severity . 314
  Crime: decrease in returns of commitments owing to increase of summary convictions 315
  —— increase or decrease of different kinds of offences, 1856-66 . . 315–16
  —— ill effects of morbid objection to capital punishment . . . 316
  —— small proportion of executions of murderers compared to number of verdicts of murder 317
  —— total charges of the criminal classes in 1866 . . . . . 317 (note)
  —— large proportion of Irish and Roman Catholics among the criminals of England and the United States 318
  —— pretence by prisoners that they are illiterate, that their supposed quickness at learning may gain them a better character 319
  Increase of crime due to carelessness of people with regard to person and property, reluctance to prosecute, and tendency of juries and judges not to convict, commutation of sentences, and general laxity in imposing punishment 320–21
  Tables. Articles imported, and import and export trade, 1850-66 . . 322–3
  —— deposits in savings banks 324
  —— expenditure on education 325
  —— pauperism 326
  —— criminal offenders of certain classes convicted 327
  —— indictable offences, summarily disposed of, and persons committed for trial 328–9
  —— fires in London and other cities, showing increase since 1845, &c. . 330

EMIGRATION, relief of the labour market by, &c. 307–8
EXCHANGES (FOREIGN), quotations on London:
  Oct.–Dec., 1867 . 120 | April–June, 1868 . 372
  Jan.–March, 1868 . 263 | July–Sept., „ . 502

EXPORTS, United Kingdom:
  Jan.–Dec., 1863-67 . 113 | Jan.–June, 1864-68 . 365
  Jan.–March, 1864-68 . 256 | Jan.–Sept., „ . 495
  see *Imports*, *Trade*.
EXPORTS from United Kingdom to West Coast of Africa, 1805-65 . 31–2

FINANCIAL History of 1867. See *Commerce*.
FINANCIAL CONDITION of France 53–5
FIRES in London, &c., increase since 1845, &c. 330
FRANCE, analysis of the report on the state of, to the senate and legislative body, 1867 (see *Sykes*) 49
  population, benevolent establishments, prisons, &c. 50–2
  finances, agriculture, railways, &c. 53–59
  fine arts, &c. 59–60
  justice, instruction, societies, &c. 60–66
  meteorology, climate, &c. 66–7
  war department, conscription, &c. 67–71
  colonies, marine, &c. 71–4
  see *Agriculture* in.
FREE TRADE, results of twenty years of, that we receive one quarter of corn of all kinds, and one-third of wheat supply from abroad . 127

PAGE

Free Trade—*contd.*
effect of, on British agriculture 140–41
effect of, moderation of price, and increase of supply of food 144
in cattle, the cause of the introduction of small-pox in sheep, the cattle plague, pleuro-pneumonia, &c., since 1847 404

Gambling. *Statistics of British Gambling* [from the "Pall Mall Gazette"] 91
Enumeration of the prize money distributed at races during each month of the year amounting in total sum to 367,000*l.*, of which the bets in addition form a large multiple 91–4

Gold, see *Currency* (Gold and Metallic).
Greece, statistics of, (see *Bikélas*) 265
ditto, *tables* of 291–8
area, cultivation, &c. 267–8
population, towns, army and navy, &c. 268–71
public instruction, publications, &c. 273–4
agriculture, commerce, roads, &c. 275–85
public debts, finance, progress, &c. 285–90
Guerry (M.)—Notice of his death, and of his elaborate work on the comparative statistics of French and English crime 123

Hamilton (Archibald). *On the Trade with the Coloured Races of Africa* 25
Country inhabited by the Ethiopic races, its natural and geographical hindrances to civilization, independent of inferiority of race 25
Districts explored by Livingstone, Barth, Speke and Grant, and Baker 25–6
The African slave trade mixed up with legitimate commerce, evils it has created, &c. 26
—— suppression of the transatlantic slave trade, but unchecked continuance of the Mahomedan traffic; comparative numbers of each 26–7
Progress of the substitution of legitimate commerce on the west coast, but necessity for our continued vigilance to repress the renewal of the slave trade 27
Growth of a class of educated blacks (educated at the missionary schools of Sierra Leone) as traders along the west coast 27–8
Progress of the republic of Liberia, from its settlement in 1820, and declared freedom in 1847 28
British settlement of Lagos, formerly the head quarters of the slave trade 29
Mouths of the Niger, and the oil rivers 29–30
Gaboon and Congo rivers, prevention of the slave trade, and growth of trade in produce 30–31
Exports from the United Kingdom to the west coast, from 1805 to 1865 31–2
Supplies of cotton from Central and Western Africa 32
Trade between the colonists and natives beyond the borders 33
Historical retrospect of the commerce of the Arabs and Portuguese on the east coast 33
—— their continuance of the slave trade 34
Great increase of the Zanzibar trade 34–5
Zanzibar the only part of Africa where the slave trade is legal, its connexion with the Eastern markets 35
Account of the Mahometan slave trade, expenses of the Tripoli caravan, trade across the desert, and great mortality of the slaves 36
Legitimate commerce with Central Africa as yet confined to the Arabs, who have become the ruling power there 37
Description of the markets of the towns of the interior, and articles of commerce sold there 38
Historical notice of the Niger as a highway to the centre of Africa, and of the successive expeditions for opening up a trade on the river 39–42
Necessity for continuing our vigilance in suppressing the slave trade of the east as well as the west coast 42
Tables. Slaves exported from west coast since 1848, and imports and exports, 1855-66, and values of the latter 43–5
—— tonnage of vessels from oil rivers, 1839-66; trade with west coast, and palm oil imports into United Kingdom since 1790 46–7
—— summary of trade with the coloured races 48

Harvest. *The Last Harvest*, 1867 [from the "Mark Lane Express"] 97
Results of estimates in letters from all parts of England relating to cereal crops 97
Unfavourable character in comparison with those of 1866 98
The deficiency one-fourth of an average crop 98

PAGE

HARVEST—*contd.*
  deficient, of 1867, rise of price from 78
  The Harvest of 1868. Letter to the "Times" from Mr. Caird . 469
    Crop of 1868, 32 bushels per acre, or 5 bushels above the average . . 469
    Foreign imports required will not exceed 5,000,000 quarters . . . 469
    Deficiency in the barley and oat crops, and hay and green crops . . 470
    Increased extent and average crop of the potato with little disease . . 470

HEYWOOD (James). *Form of Government and Educational System of the University of Cambridge* 1
    Academical roll of persons to whom the choice of a council was committed . 1
    Composition of the council, and its initiation of all academical business before presentation to the senate 1
    Predominating clerical element in the council 2
    No alteration of acknowledged errors in our translation of the Bible, adopted by the University press 2
    Educational system: studies, and examination, nature of the "little-go" and degree examination 3
    —— candidates for honours, examination in the mathematical and classical tripos (bachelor of arts degree) 4
    —— moral and natural science tripos, law examination, &c. . . . 4–5
    —— theological examination 5
    Fellowships, how usually filled, and changes proposed by Professor Seeley . 5–6
    —— changes adopted as experiments for encouragement of study at Christchurch and Magdalen, Oxford, and at Trinity College, Cambridge . . 6–7
    Scholarships, their pecuniary advantages, increase in their value . . 7
    —— examination for, opening of those of Trinity College, Cambridge, to candidates of either university 8
    Subjects of the matriculation examination of the University of London 8–9
    Summary of Professor Seeley's recommendations 9
    Proposal for the introduction of modern languages as alternatives to Latin and Greek verse composition 10

HEYWOOD (James). *State of, Health, and of the Employment of Indians in the New England Company's Settlement of Kauyageh, Canada* 393
    The New England Company, founded in the time of Cromwell . 393
    State of the district around the Kauyageh station, and causes of death among the Indians, January–June, 1868 393–4
    Non-abuse of ardent spirits by the Indians, and their skilfulness and willingness to work 394

HOMŒOPATHY, complete failure of, in treatment of cattle plague . 396

ILLEGITIMATE, in Scotland, see *Births*.
IMPORTS, United Kingdom:

Jan.–Dec., 1863-67	112	Jan.–May, 1864-68	364
Jan.–Feb., 1864-68	255	Jan.–Aug., ,,	494

INDIA, see *Railways*.
INDIANS, in New England Settlement of Kauyageh, Canada, health and employment of (see *Heywood*) 393
INSOLVENCY, necessity for its punishment when wilful and avoidable . 312–13
INSTRUCTION (PUBLIC), see *Education*.
INSURANCE, objections to its principles little more than a century ago, and rapid growth since 381–2
  Fire and Marine, estimates of the amounts of 383–4
IRELAND. *Irish Holdings, Large and Small* [from the "Pall Mall Gazette"] 335
    Nearly half under five acres in 1841 335
    Decrease of small holdings since the famine of 1847-48 . . . 335
    Great increase of larger holdings, and its real benefit to the economical condition of Ireland, though considered an injury to the poor agrarian population 336
    Value of live stock on the different sized farms 336–7

IRON TRADE, depression and stagnation of, in 1867 86–7

PAGE

Jeula (Henry). *The Present Aspect of Statistical Inquiry in relation to Shipping Casualties* 418
  - Enumeration of publications hitherto compiled on the subject . . 418
  - The analysis applied to the years 1864, 1866, and 1867 . . . 419
  - Lost and missing vessels reported by the "Bureau Veritas" . . 419
  - Number of men employed in the registered sailing and steam vessels of the United Kingdom, and percentage of increase or decrease, 1850-66 . . 420-21
  - *Tables* of number of vessels to which accidents happened, from "Lloyd's List," and from the "Bureau Veritas," 1866-7-8 422-5

Jevons (W. Stanley). *On the Condition of the Metallic Currency of the United Kingdom, with reference to the Question of International Coinage* 426
  - Necessity for a recoinage, and the introduction of an international money . 426-38
  - No particular changes in our coinage since the act of 1816 . . . 426
  - The depreciation of our gold coins not prevented by our continued enormous coinage 427
  - An international coinage obtainable by coining our sovereign 1 per cent. less in weight, and assimilating it to the 25-franc piece 427-8
  - Reason why our coinage would become more diffused by our joining the International Monetary Convention 428-30
  - The smaller payments usually adjusted to the nearest round number of shillings or pence 430
  - The reduction of coin into bullion would be stopped by our coins passing current in foreign countries 431-2
  - The grounds against the adoption of a mint charge disappear before an international currency 432-3
  - The law relative to the weighing of coin not acted on, and one-third of the sovereign circulation light 433
  - Serious losses of country banks from the accumulation of light gold in their hands 434
  - Legitimate use of our light coinage in forwarding the scheme of an universal money 435-6
  - Absurdity of a free coinage system, and large profit on recoinage by adoption of a mint charge 436-7
  - A free exchange of money a natural corollary of our free trade system . 437
  - Amount and age of the gold currency 438-47
  - *Table* of comparative number of sovereigns of each year's coinage, 1817-67, in 100,000 coins 440
  - Calculation from ditto that the circulation of sovereigns does not exceed 75 million, and half-sovereigns 24 million 441-3
  - Estimate that the gold circulation of this country does not exceed 80,000,000*l.*, compared with other estimates, by Graham and Wilson, Miller, Weguelin, and Newmarch 443-6
  - Aggregate of circulating medium, 110 million metallic, and 24 million paper . 446-7
  - *Tables* of the comparative age of the gold circulation in various districts . 448-9
  - New coin, chiefly in manufacturing, and old, in agricultural districts . . 449
  - Inquiry into the causes of particular movements in the circulation . . 450-51
  - System by which the old light coins are retained in circulation . . 451
  - Proportions of coins now in use of those struck in different years since 1817 . 452-3
  - Deficiency of weight of the gold coinage 454-64
  - Average weight and rate of wear from different years of issue . . 454-5
  - Calculation that eighteen-years' wear reduces a sovereign below legal weight, and that 31 per cent. of the currency is in that condition . . . 455-6
  - Additional evidence, from comparisons of the Bank of England with different parts of the country, of the percentage of light coin in circulation . . 456-60
  - Total deficiency in weight on the assumed amount in circulation, 330,000*l.* . 460
  - Calculations of the average wear of half-sovereigns 461-2
  - Inconsiderable cost of maintaining the currency by recoinage . . 463

Kanyageh, Canada, health and employment of Indians in the settlement of (see *Heywood*) 393

Labour and Capital, non-antagonism of, evils of strikes and benefits of industrial partnerships 378-81
  - —— in America, see *America*.

Lagos, British settlement of, formerly the head quarters of the slave trade 29

Lancashire, see *Societies* (Co-operative).

Land, large and small holdings, in Ireland, see *Ireland*.

Lawes (J. B.) see *Wheat*.

Lemon (Sir Charles), obituary notice of, ... 123

PAGE

Liberia, progress of the republic of, from 1820 28
Live Stock, valuation prices in England, Scotland, and Ireland . 144
London (University of):
    matriculation, examination subjects 8-9

Mann (Horace). *Some Statistics relating to the Civil Service* . . 407
    Numerical force (107,000) 407
    Classification of heads of departments, clerks, officers, artisans, &c., and number of departments 408
    Cost (10,800,000*l.*)—confusion in the nomenclature of situations . . 409
    Remuneration—ninety distinct scales of salary among the "established" clerks and number and salaries of supplementary clerks . . . 409-11
    Competitive examinations, though adopted, applied in comparatively few instances 411
    Large number of varying schemes of examination, illustrated in the subject of arithmetic 412-13
    Various limits of age for government situations prescribed by different departments 413
    Useless variations in nomenclature, remuneration, examinations, &c., out of proportion to the varieties in the subject-matter dealt with . . 414
    Political patronage not abolished by the examination system, but as to nominations increased fourfold 414-15
    Table of scales of salary of established clerkships 416
    —— of limits of age, and classes of situation to which applicable . . 417

Marriages, proportion of to population and in seasons, in European countries 158
Meat (Butcher's), greater use of since repeal of corn laws . . 128
Meteorological Tables (general and special), by James Glaisher:
    Dec. quarter, 1867 105-6 | June quarter, 1868 . 358-9
    March „ 1868 244-5 | Sept. „ . 488-9

Mortality, theory of Gompertz as to the true law of 382
Mortality of England and Wales, annual rate per cent. in town and country districts:
    All quarters, 1865-67 . 103 | All quarters, 1866-68 . 356
    „ 1866-68 . 242 | „ „ . 486

    —— see *Registration.*
    average annual rate in eleven divisions of England, 1851-60 and 1867-68 . . . . 102, 355, 485
    in European Countries; average rates of, and ratios of births to deaths 154-5
    ditto, according to sex, in seasons, &c. 155-6
    ditto, *tables* 157

Niger (River), notice of, as a highway to the centre of Africa, expeditions to, &c. 39-42
Norfolk. The cattle plague in, (see *Smith*) 395

Parliament. *Parliamentary Constituencies in* 1832 *and* 1868 . . 346
    Comparison of the number of boroughs disfranchised, and reallotment of seats in 1832 (145) and 1867 (53) 347
    Analysis of the proportion of members of the parliament of 1831 who regained seats in that of 1832; conjectures as to the changes in 1868 . . 348-9

Partnerships (Industrial), benefits of, as exemplified in the Whitworth Collieries 380-81
Pauperism, increase of, from the pauper being placed in a better position than the self-supporting labourer 312
Pauperism and Crime. Increase of material prosperity and moral agents compared with the state of, (see *Elliott*) 299
Pleuro-pneumonia, mortality from, reduced by the cattle plague restrictions 403

PAGE

POLICE, necessity of its being more preventive than detective . . 313
    number of assaults on, 1850-66 314
POPULATION:
    decrease of in Ireland, 1841-61 (2½ million) 149
    of large towns, comparative to total population, increase, &c. . 149–51
    comparative, of European States (see *S. Brown*) . . . 146
    of European States, *tables* of proportion of females, &c. . . 160
    —— comparative numbers of males and females, density, &c. . 147–8
    of France, 1867 50
    of America, decennial increase since 1820 165
POST OFFICE, see *Assurance* (Life).
POTATOES, proportions of population in European States to each acre of, showing England to be the least and Ireland and Prussia the most dependent on them for food 142
    much used in Prussia for distillation 143

PRICES of provisions, average of consols, wheat, meat, &c., with pauperism and temperature, 1866-68 . . . . 102, 241, 355, 485
    comparative wholesale in London, 1859-68 80–81
PRICES, comparative at New York, 1856-68 221
PRISONS and Penitentiaries of France 51
"PRUD-HOMMES," COURTS OF, establishment of in France since 1848. 379
PURDY (Frederick), see *Agricultural Statistics* of England (Topographical Classification).

QUETELET (M.) his origination of the Statistical Congresses in 1853 . 11
    proposition on the use of the theory of probabilities in statistics . 22

RACES, see *Gambling*.
RAILWAYS, excessive legislation of 1862-66 79
RAILWAYS, prices and traffic:
    Jan.–Dec., 1867 . 118 | Jan.–June, 1868 . 370
    Jan.–March, 1868 . 261 | Jan.–Sept., „ . 500
    The Railways of India [from the "Pall Mall Gazette"] 475
        Rapid growth of railways in India (3943 miles) since 1853, and positions of the lines 475
        Mileage, locomotives, and rolling stock of railways, 1868 . . . 476
        Collapse in the Indian cotton trade in 1867, but improvement since caused by railway increase 476
        Capital raised in, and railway material shipped from, England for Indian railways 476
        Great majority of employés on railways natives 477
        Capital authorized and amount expended on Indian railways . . . 477
        Items of expenditure and average cost per mile 478
        Passenger traffic of Indian railways (almost entirely third class) . . 479
        Receipts and expenditure of Indian railways, 1867 480
        Comparison of ditto with those of Great Britain and Canada . . . 481
        Admirable arrangements of the guarantee system for keeping capital and revenue accounts distinct 481
RAILWAY COMPANIES. Discredit and exposures of the management of, in 1867 87–8
REGISTRATION of marriages, births, and deaths, (serial tables):
    Quar. Sept.–Dec., 1867 . 100 | Quar. March–June, 1868 . 353
    „ Dec.–Mar., 1867–68 239 | „ June–Sept., „ . 483
    tables of divisions 104, 243, 357, 487
    annual rate per cent., 1861-68. . . . . 101, 240, 354, 484
    special *table* of fourteen large towns 103, 242, 356, 486

REGISTRATION—*contd.*
ditto, Scotland,
(serial, average, bastardy, and divisional tables):
Quarter, Dec., 1867 . 107–9 | Quarter, June, 1868 . 360–62
„ Mar., 1868 . 246–8 | „ Sept., „ . 490–92

summary of Great Britain and Ireland:
Quar. Sept.–Dec., 1867 . 109 | Quar. March–June, 1868 . 362
„ Dec.–Mar., 1867-68 . 248 | „ June–Sept., „ . 492

rates of marriages, births, and deaths in European countries . 159
see *Births, Marriages, Mortality.*

REVENUE, net produce of, and application, &c., in years and quarters ending:
Dec., 1864-67 . 116–17 | June, 1865-68 . 368–9
March, 1865-68 . 259–60 | Sept., „ . 498–9

SANITARY REFORM. *The Progress of Sanitary Reform* [from the "Saturday Review"] 230

Exaggerated notions of the hygienic effects of drainage and ventilation held thirty years ago. Passage of the Public Health Act, and Epidemic Diseases Prevention Act, and their value against cholera and like diseases. Error of supposing their rules equally potent against other epidemic disorders; influence of disappointments at the non-extinction of epidemics, and dissatisfaction at excessive expenditure in causing the suppression of the Board of Health; increase of valuable sanitary works since under the Medical Department of the Privy Council; its inquiries into defective vaccination, local epidemics, epidemic diarrhœa, diphtheria, infantile mortality, hurtful occupations, hospital hygiene, &c., and the subsequent valuable results 230–34

SAVINGS BANKS, increase of amount of deposit more than in number of depositors since 1851 306–324
SEELEY (Professor), Changes as to Fellowships at Cambridge, proposed by 5–6, 9
SHIPBUILDING. *Trades' Unions and London Shipping* [from the "Economist"] 471

The shipwrights' rate of wages fixed in 1825, since regulating incidentally all other work 471
Modern tendency to substitute cheap things to last a short time for dear things to last a long time 471
The London shipbuilding trade confined to the more expensive durable class, caused by the "unions" and their fixed high rate of wages . . 472
Relative excess of London prices over those of Birkenhead, Newcastle, and Glasgow 473
Reckless increase of shipbuilding by companies started on advances from Overends and others, and their collapse 473–4
The distress caused by this collapse, the settled "union" prices not allowing the London trade to change according to circumstances . . . 474–5

SHIPPING (British), vessels and tonnage.
foreign trade, United Kingdom:
Jan.–Dec., 1864-67 . 114 | Jan.–June, 1865-68 . 366
Jan.–March, 1865-68 . 257 | Jan.–Sept., „ . 496

SHIPWRECKS. Present aspect of statistical inquiry in relation to (see *Jeula*) 418
tables of number of, 1866-68 422–25
SILVER CURRENCY, remarkable drain of to India from France, Germany, and America 84
SLAVE TRADE of Africa, mixed up with legitimate commerce, suppression, &c. . . . . } 26–7, 42
unchecked continuance of the Mahomedan traffic on the east coast 27, 34
Mahometan, account of 36–7

PAGE

SLAVE TRADE—*contd.*
  prevention of in Gaboon and Congo Rivers 30–31
  only legal now at Zanzibar 35
  table of slaves exported from the west coast since 1848 . . 43–5
SLAVES. Proclamation of President Lincoln for the freedom of, in the rebel States 181
SMITH (William). *The Cattle Plague in Norfolk* 395

  The disease indigenous only in the steppes of Western Russia . . 395
  Its nature, symptoms, and duration 396
  Post mortem appearances: treatment by homœopathy, vaccination, &c., complete failures 396
  Historical notice of its ravages, its appearance in England in 810, 1714, and 1745 396
  Mode of its introduction and progress in Norfolk in 1865 . . . 397
  Delay and vacillation in Government interference, and consequent spread of the disease; agreement to abstain from purchasing stock, and formation of the Norfolk Cattle Plague Association, &c. 398–9
  Value of the means employed to stamp out the plague 400
  Total loss to the county by the cattle plague, amounts of compensation paid, &c. 400
  Summary of facts and figures relative to the rinderpest in Norfolk . . 401
  Favourable comparison with other counties as to numbers of cattle attacked . 402
  Examples of the benefits of the immediate destruction of infected animals in France, Belgium, &c. 402
  Mortality, from pleuro-pneumonia, much reduced during the restrictions adopted against the cattle plague 403
  Free trade in foreign cattle the cause of the introduction into this country of smallpox in sheep, the cattle plague, pleuro-pneumonia, and mouth and foot disease, since 1847 404
  Disease among sheep analogous to the cattle plague, returns of numbers attacked, killed, &c.; doubtful results of experiments as to its nature . 404–5
  Immense importation into London of foreign diseased sheep from Rotterdam, &c., which might have been prevented had the "Foreign Market Bill" of the Government not been thrown out in the last session . . . 406

SOCIETIES (CO-OPERATIVE). *Co-operative Societies of Lancashire* [from the "Manchester Guardian"] 94

  Statement of the societies which have arisen from the success of the Rochdale Equitable Pioneers Society, twenty years ago 94
  List of the members, goods bought and sold, and profits in 1866, of the principal societies 95
  Statement, more in detail, of the Equitable Pioneers Society . . . 96
  The principle adopted in the Civil Service Co-operative Stores in London . 97

SOVEREIGNS. See *Currency* (Metallic).
  number of each year's coinage, 1817-67, in 100,000 coins . . 440
STATISTICAL CONGRESS. See *Congress*.
STATISTICAL SOCIETY (The).
  anniversary meeting and report—thirty-fourth, March, 1868 . 121
  list of papers read, 1867-68 122
  abstract of receipts and payments for 1867 125
  proceedings, ordinary meetings, first to eighth, 1867-68 . . 467–8
STORES (Civil Service Co-operative) principle adopted in . . . 97
STRIKES, evils of the coercion and oppression connected with, &c. . 379
  in 1867 rendered useless by the panic and slackness of trade . 82
  of bricklayers and plasterers in America, see *America*.
SYKES (Colonel W. H.). *Analysis of the Report upon the State of the Empire of France, presented to the Senate and Legislative Body, February*, 1867 49

  State of interior, municipal elections, &c. 49
  Printing, libraries, political journals; warnings 49–50
  Population 50
  Benevolent establishments, asylums, hospitals, mutual aid societies, &c. . 50–51
  Prisons and penitentiaries 51
  Telegraphic system 51–2
  Departmental and communal administration, roads, &c. 52
  Financial condition, bank, budget, debt, taxes, customs, post, coinage, &c. . 53–5
  Agriculture, industry, machinery, exports, roads, navigation, &c. . . 55–7
  Railways, mines, &c. 57–9
  Fine arts, buildings, theatres, races 59–60
  Justice, worship, cathedrals, &c. 60–61

PAGE

Sykes (Colonel W. H.). *Analysis of the Report—contd.*

Public instruction, schools, &c. 61–5
Sciences, academies, learned societies, &c. 65–6
Meteorology, climate, maps, &c. 66–7
War Department, army, conscription, military schools, arms, hospitals, &c. . 67–71
Algeria, marine, shipbuilding, gunnery, &c. 71–4
Colonies, foreign affairs, &c. 74
Completeness of this French report in minute details, and recommendation of a similar exposé for our Houses of Parliament 75

Tables (Quarterly). Notice of certain changes in their arrangement 99
Taxation. *Taxation and Wages in America* [from the "Times" and "Pall Mall Gazette"] 228

Impatience to clear off the war debt; public debt seven years ago under 14 million sterling, now as large as our own (measuring by annual charge); expenditure equally increased: incomes falling off 30 per cent., and trade bad; enormous incomes of some citizens in New York; the real estate of New York in very few hands; effects of their high protective tariff in raising prices; the income tax in this country never subject to so serious a reduction as 30 per cent., probably owing to our compensating freedom of trade; rise of wages in the United States 60 per cent. since 1860 . 228–30

Telegraphic System in France 51–2
Telegraphs (Electric), probable benefits of their being placed in the hands of Government 384–6
Trade of United Kingdom, exports and imports, 1865-67 . . { 111, 254 / 363, 493
see *Exports*, *Imports*.
Trade (Foreign), increase of foreign competition with our, 1867 . 82
with the coloured races of Africa (see *Hamilton*) . . . 25
tables of ditto 43–8
of Africa, by Arabs and Portuguese on the east coast and in Central Africa . . . . { 33–5 / 37–8
Trade of the United States 343

Imports into the States in 1867, compared with the last ten years and first three months of 1868 344–5
Exports for 1867 and first three months of 1868, showing decline in the latter 345
Excess of exports over imports in first quarters of 1867-68 . . . 346

Trades' Unions. *A Trades' Union* [from the "Times"] . . 236

The Amalgamated Society of Carpenters and Joiners: its reputation for good management; origin in 1860; now comprising 200 branches; amount of income; comparative expenditure on benefits and on trade quarrels and strikes; cost of management; objection to equalisation of wages; conclusions in favour of arbitration between masters and men . . 236–8

see *Shipbuilding*.
Turkey, see *Education* in.

United States, see *America*.
Universities, see *Cambridge*, *London*.

Vessels, see *Shipping*.

Wages, large increase of, in various trades, of late years . . . 305–6
in America, see *Taxation* and Wages.
Weather, see *Meteorology*.
Weights and Measures, notice of report on the unity of . . 20
recommendation of the Conference at the Paris Universal Exhibition of the metric system, &c. 386–7
Wensleydale (Baron), notice of his death 123

PAGE

Wheat, rise in price from deficient harvest in 1867 78
  average yield per acre not more than 28 though supposed to be 32 bushels 130
  low average yield of, in France (15½ bushels per acre) . . 138
  Wheat Crops of 1868 *and Former Years* [by Mr. J. B. Lawes, of Rothampsted] 339
    Singularly early harvesting and dryness of the wheat crop of 1868 . . 339
    Comparative results and averages on the same plots, unmanured and manured during 1852-68 340
    Excess of the crop of 1868, over the average of sixteen preceding years . 340-41
    Constant relation between crops below average and prices above average, and *vice versâ* 342
    Average of grain and green crops for 1868 343

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